

## APPENDIX B

### ONE-CALL SYSTEM MANUAL

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**ONE-CALL  
SYSTEM  
MANUAL**

1984 Revised Edition

Utility Location and Coordination Council

of the  
American Public Works Association  
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## PREFACE

This publication is intended to serve as a guide in the development of one-call systems. Compiled by members of the ULOC One-Call Systems International Executive Committee, it is meant to assist in the effective development and extension of the one-call notification concept.

The information provided here represents the combined efforts of many one-call system operators. It is hoped that other communities will find this information valuable and will benefit from the collective experience of those who have preceded them in setting up one-call notification programs.

As community needs differ, so do the requirements of one-call systems. No "cookbook" approach can be developed due to these varying requirements. This guide attempts to examine the concepts behind one-call programs and identifies those steps taken to meet overall system needs.

The Utility Location and Coordination Council of the American Public Works Association, of which the One-Call Systems International Executive Committee is a part, is indebted to many individuals and their employers for their valuable and enthusiastic cooperation. Without it, this publication could not have been produced.

This publication may be amended and refined as more experience and new technologies are developed. Comments about future changes are invited as you become involved in this most effective phase of underground facility damage prevention.

One-Call Systems International Executive Committee  
Utility Location and Coordination Council  
American Public Works Association

## INTRODUCTION

We all know that subsurface facilities are not new. The ancient Romans built underground waterways and sewers thousands of years ago and even back then **it** was safe to assume that whatever one man buried, another would accidentally dig up.

Today, the problems associated with buried plant are exacerbated not only by the number of facilities placed below ground but by the constant growth, renewal and redevelopment of our communities. The result is an ever-increasing need to coordinate all excavation and blasting activities with those who share the ground beneath us.

Without coordination and communication the web of subsurface facilities can be a very dangerous one to circumvent. Studies by the National Transportation Safety Board show that better than 40% of pipeline damages and the resultant deaths, injuries and property damages are caused by someone digging into the pipelines accidentally. Countless **lives** and expense could have been spared **if** only these excavators knew what lay beneath their job sites.

Coordination and communication are what one-call systems are all about. A one-call system is a tool to use in the prevention of facility dig-ups. **It** is a communication link between excavators and buried-plant owners and operators. A one-call system is a safety program designed to cut the cost of pipe and cable repairs and even more important, **it** is meant to diminish the hazard posed to workmen and the general public whenever excavation is undertaken.

The ancient Romans may have invented buried facilities. Perhaps their empire would have lasted longer had they invented one-call systems as well.

## MINIMUM REQUIREMENTS OF A ONE-CALL NOTIFICATION SYSTEM

The American Public Works Association strongly encourages all owners and/or operators of underground facilities to participate in one-call notification systems. While it is recognized that some areas may require or desire a great deal of sophistication, it is APWA's intent to provide these minimum requirements, in order to assist all parties in establishing cost efficient, as well as effective, one-call notification systems.

1. One telephone number should be provided for excavators to use to notify participating utilities within a predetermined area of planned excavation work.
2. The service should be provided during normal working hours, Monday through Friday.
3. Off-hours calls should reach a recording which explains emergency procedures.
4. All telephone calls should be mechanically voice-recorded.
5. The system should identify for the caller those utilities which will be notified for them.
6. The system should provide a permanent file number for each request.
7. The system should provide, for a statutory period, a printed copy of all location requests which can easily be retrieved through use of the file number.
8. The system should provide a timely method of notifying the affected utilities. This method is to be determined by each individual system.

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9. The system should provide periodic administrative reports as required by the participating utilities.
10. The system should document contractor education programs on an ongoing basis.

## DEFINITION

A one-call notification system is a communication system established by two or more underground network owners or operators to provide one telephone number for excavating contractors and the general public to call for notification of their intent to use equipment for excavating, tunnelling, demolition, or otherwise disturbing the subsurface of the earth. This below ground protection system provides participating members an opportunity to identify and mark their lines in the vicinity of proposed activity. The notification also allows the owners of underground facilities to provide any necessary information about the facilities and to post a construction watch, if desired.

This definition covers a wide variety of one-call operating possibilities ranging from a simple answering service arrangement to an in-house system run by a participating member to a separate incorporated organization of member firms which awards the operation of the one-call center to a contractor. Information contained in this manual should be applicable to most types of one-call systems.

## GOALS

Beyond the obvious goal of increasing excavation notices, the one-call system is a multi-purpose endeavor which benefits every element of a community. A brief listing of one-call objectives includes:

1. Prevention of underground damages which reduces monies spent on repairs and customer service outages.
2. Protection from loss of or damage to life, property, and equipment.
3. Reduction of excavator downtime.
4. Protection of the environment and natural resources.
5. Establishment of a watch over unauthorized excavation.
6. Assistance for excavators in complying with federal OSHA regulations and, where in effect, state laws.
7. Promotion of coordination among utilities, governmental agencies, and other operators of underground lines for placement and preservation of below ground facilities.

## BACKGROUND

For years owners and operators of underground lines have attempted to persuade excavators to provide notification of their proposed digging activities. With more and more facilities going underground, the need to notify each owner of lines became a staggering and often frustrating task. Who has facilities on C Street? Where on B Street? Suddenly it became inconvenient for many excavators to notify anyone. Soon a trend became evident - the most common way to locate an underground facility was to dig it up with a backhoe.

In the early 1960's a group of underground service operators decided to take steps to alleviate this worsening situation. They started with the basic premise that if the red tape and inconvenience of making multiple calls could be eliminated, then more excavators would notify owners of facilities and services would be protected. From that premise, those operators established the

first one-call notification system, a central calling point with a single telephone number.

Since that time the one-call concept has been successfully implemented throughout the United States, Canada, Taiwan, and the United Kingdom. Significant progress has been made in one-call systems since the early beginnings. Many systems have expanded their coverage area from one or two counties to the entire state or multi-states; other systems have developed from small manual operations to sophisticated, automated programs which process several hundred thousand notifications yearly.

In order to promote the one-call concept, several one-call centers banded together in 1976 as a committee of the Utility Location and Coordination Council of the American Public Works Association. The advances made in the one-call arena under the guidance of this committee have been quite significant. One of the major accomplishments has been the staging of an annual symposium to provide assistance for those interested in establishing centers. A yearly directory and an annual newsletter are published by the committee to report on the state of the art in one-call. Recently a standard logo was adopted by the committee to formalize its identity. The One-Call Systems International Committee has also been instrumental in developing and promoting standardization of staking and color codes for temporary marking and in defining the need for advanced underground locating equipment,

## IDENTIFICATION OF ONE-CALL SYSTEM USERS

One-call system users include firms, joint ventures, partnerships, corporations, associations; municipalities, political subdivisions; governmental units, departments, and agencies; utility companies with underground faci-

ilities; and any persons who need to excavate or work with the soil in such a manner as to **contact** or cause possible damage to subsurface structures.

System users include two divisions. The first is operators of underground facilities such as:

1. communication carriers - telephone, telegraph, cable TV, fire, police, traffic control, military, airport, and other signal system operators
2. electricity providers - transmission and distribution, private, cooperatives, municipal, traffic control, street lighting, and others
3. gas and petroleum product carriers (gaseous and liquid) - transmission, distribution, municipal, cooperative, private, and others
4. water and sewer suppliers (private and public) - transmission, distribution, sanitary, storm, flood control, and others
5. transportation - railroad, rapid transit, shuttles, roadways, and similar facilities
6. All others who own or maintain substructures

The second division includes but is not limited to excavators such as:

1. operators' contractors
2. general contractors and subcontractors
3. highway, street, and road builders
4. plumbers and steamfitters
5. landscapers, forestry groups, lawn services, fencing companies, and similar groups

6. well-drillers and miners
7. recreational builders
8. real estate developers and home builders
9. engineers and project originators
10. home owners (including farmers)
11. blasting contractors
12. all others who excavate the earth's surface

One-call system users include all groups listed above and others as well. **One-call** systems accept calls from anyone needing to determine the location of underground facilities.

## ESSENTIALS IN ORGANIZING A ONE-CALL SYSTEM

### GOVERNING BODY

Even before a decision is made to initiate a one-call system, a governing body should be **assembled**. This group, whether **it** is called a steering committee or operating committee, should be large enough to cover all aspects of the organization but small enough to function with a minimum of red tape. The committee should encourage as many varied service organizations as possible to be represented, including members from municipalities. Input from smaller underground service organizations such as cable television groups can prove beneficial to the committee as well.

A primary concern of the **committee** should be to develop the overall concepts. **It** may wish to appoint subcommittees to deal with specific tasks such as drawing up contracts, establishing public relations, purchasing equipment, obtaining office space, and similar tasks. The theme must be to compromise

for the good of the center since not everyone's desires can be fully accommodated.

The most common frequency for meetings of the members or governing groups is monthly. Some meet twice a month and others, once every two months. Types of meetings vary, but most are of the decision-making or coordinating type. As a system grows in membership, this kind of meeting becomes more difficult to arrange due to the large number of people and amount of related discussion. One method being used successfully is to hold monthly meetings for a small governing group (board of directors) plus a semi-annual or an annual membership meeting to discuss past performance, future plans, and to elect officers.

## AGREEMENTS

Operating procedures and bylaws should be established. Procedures for the operation of a one-call center should be simple. The concept is for service, not paperwork. Topics for procedures can be classified as: general, communications, center operations, reports, expenses, and publicity. These topics could be expanded to include guidelines and whatever else is needed for a particular system.

Bylaws vary, depending on the type of organization. In some instances they may prove unnecessary. If bylaws are adopted, simplicity should be the keyword. Items that could be incorporated include sections on membership (including rights), financial matters, meetings, elections and duties of officers.

Any other agreements required should be kept as simple as possible to facilitate understanding by all participants. Consideration should be given to including "hold harmless" clauses, amounts of liability insurance, errors and omissions insurance, retention of records, cost

allocations, reimbursements, area served (with options to expand as planned), and any special arrangements necessary. If an agreement to contract the service to an outside concern is made, it should contain controls, checks, and balances.

Certain states have municipal home-rule charter requirements which may raise questions concerning municipal participation in a one-call system. Does a municipality, in effect, relinquish a portion of its regulatory authority by such participation? Can a municipality with the right of sovereign immunity enter into an agreement containing a "hold harmless clause?" An attorney experienced in the field of municipal law should be consulted.

The size of the area a one-call system serves should be carefully chosen. In establishing boundaries, it is wise to use prominent existing ones such as county, city, or state lines. A system should not use boundaries set by a utility (e.g., district, division) because most excavators neither know nor care about such "invisible" boundaries. However, this does not answer the utilities need to protect their entire system. If at all possible a statewide system should be considered.

Advantages of a statewide system far outweigh the disadvantages. For instance, a contractor need only remember one number to call anywhere in the state to give notification. Only one staff is required to process calls. There are no questions in the excavator's mind as to whether he has called the right center. Center credibility is more viable and general funding is considerably more evenly distributed due to a larger number of participants.

## PROMOTION

Other than receipt and dispatch of notices, probably the most vital function

of a one-call system is the promotion of the one-call notification concept in the area served. Promotion is carried out at the national level by APWA and others, but it is essential to inform all excavators at the local level. Methods used are many and varied, with some centers using direct mail systems to contractors while others employ on-site visits, contractor association meetings and conventions, rallies, and similar means.

Many systems submit public service announcements and articles to newspapers, TV, and radio stations with success. The public information, communication, and public relations departments of members can often advise how to develop such information to increase the possibility of its being used. Employment of an advertising or public relations consultant is an option which can be productive.

Specialty advertising is also effective. Examples include key chains, tape measures, calendars, pens, and other items that will be used. The key is to create something of value which recipients are likely to keep with them and use often.

In some areas, local television talk shows are available. Many show hosts are willing to discuss the one-call concept because it is in the interest of the viewing public to reduce service interruptions.

In any case, promotion of and education about one-call systems is an on-going process. Civic and other public-service organizations are always searching for good speakers on topical subjects. Managers and committee members should contact them and volunteer their services.

#### **ONE-CALL CENTER POINTERS**

The call-receiving center is the nerve

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center of a one-call system. Here, calls are received, processed, and dispatched. Several things are of primary concern when establishing criteria for the operation of the receiving center.

#### **THE MANAGER**

First is the selection of center manager. The success of many a one-call system has been achieved on the basis of the manager's leadership alone. Most problems not involving expenditures can be solved by the manager of the system. This constitutes one good reason for selecting a strong individual for this position. In the selection, emphasis should be placed on ability, drive, and flexibility. The manager, coupled with an enthusiastic committee, can overcome many of the problems and objections that are inherent in one-call organizations. Although specific qualifications may vary, the manager should be proficient in organization, public speaking, and administration. Besides their involvement in promoting both use of and participation in the program, managers are responsible for the efficient and professional operation of the one-call center.

Incoming calls should be handled proficiently and courteously. Excavators should be encouraged to call again about future excavations. Callers should be given the names of all participants in the one-call system and be advised that any others which are not a part of the one-call system will need to be notified by the caller.

Several items of information are needed to complete the dig notice including the caller's name and company, a telephone number for use in contacting the person in the field, location of excavation, type of work, and starting date. Other information may also be required depending on local needs.

## SCREENING INFORMATION

There are several ways of screening information once it has been received. "Screening" is the term applied to how the center determines which members need to know about a particular dig. The most widely used methods of screening are the following:

1. Mass dispatch - this is probably the least desirable of notification methods. All organizations participating in the program receive each and every message regardless of how few or how scattered their facilities may be. Extra time and effort is needed to sort the information at each receiving location by the members' clerks.
2. County or township identification - this system uses political boundaries to help determine which members receive the dig-site notification. If your facilities are not in the particular town, then you do not receive the message. This is more selective and cuts down on the number of needless notifications generated by a mass dispatch system.
3. Grid system identification - this most selective of screening methods uses a geometric boundary to determine who receives notifications. Members register their plant according to predetermined grids. These can be local grids or grids prepared by various mapping companies. Generally, the grids range in size from 1/4 mile to 1 full-mile square. Everyone must necessarily use the same grids within a system. The grid an excavator is working in is identified by the address information he gives the center. Then, only those members who have a plant in that single grid are given the notification.

Each of these screening systems may be used manually or they may be incorporated into a computer-automated system.

## APWA COLOR CODE

Once the dig notice is sent to the field, it will be the members' responsibility to locate and mark their facilities or to advise the excavator if they have no facilities in the area. Each member must contact the excavator even when he has no facilities in the area to be excavated.

Although some variance in color coding exists, most operators now employ APWA's recommended color codes for temporary markings:

1. Safety Red - Electricity
2. High Visibility Yellow - Gas
3. Safety Alert Orange - Communication
4. Safety Precaution Blue - Water
5. Safety Green - Sewer

Center personnel should be familiar with the color coding system used by its members in case excavators have questions about markings along their dig routes.

## ADMINISTRATION CONSIDERATIONS

There are three widely used modes of one-call system operation. Though there are several other ways in which a program can be administered they are primarily combinations or permutations of the following:

1. Operation by a system member (in-house). In this instance, the member that operates the system is any utility or agency participating in the program. Usually the member operator will provide personnel,

office space, clerical help, and equipment. This type of system is often used at a program's start-up when funding the initial requirements may create a problem. In time, the operating costs are prorated among all members and the in-house operator is reimbursed.

2. **Contract with non-member (contractor/vendor operation).** This arrangement can be with an answering service, a contractor, or any organization equipped to take dig site notices, provide essential information to the caller, and pass proposed excavation site information on to the involved utilities. The cost is borne by all the members. Usually, as much responsibility as possible is placed on the contract operator, leaving the members free to monitor the system's overall progress. Care must be taken to ensure that in any contractual agreement, control of the system's direction and operating policies are maintained by the members.
3. **Member-owned & operated.** This mode of operation generally requires incorporation of the governing board. It must hire its own manager and staff as well as be prepared to handle liability and other insurance coverages. Though this arrangement allows a great amount of flexibility, the amount of work it entails is considerable as all the responsibilities of running an actual business are involved.

#### **OPERATION OF A ONE-CALL CENTER**

##### **BASIC REQUIREMENTS**

The determination of space, equipment, and personnel requirements at start-up time must be planned and budgeted as with any business venture. The plan must be flexible without being hit or miss. For instance, a figure for space

rental might be budgeted based on average rentals in a given area. Telephone **communication** needs however, may dictate that the center office be located in a Telephone Company Central Office area where rents are higher. Growth of the service must also be taken into consideration. This requires that short and long term planning be accomplished before a center site is chosen. It is very expensive to move once the center is set up.

Some of the basic considerations for center location are:

1. **Telephone Company. Central Office Capability.** Consult with telephone company sales and network personnel to insure that the C.O. will have the long term trunking capabilities for your **center**.
2. **Adequate Space.** Be sure that not only can you expand your floor area if necessary, but that the power, air conditioning, and space arrangements are such that planned equipment can be installed without major building modifications.
3. **Location.** Locate in an area with a large labor pool or where public transportation is available to provide for easy commuting.
4. **Work Environment.** Plan to create a pleasant work environment which will appeal both to the employees and prospective **members/visitors**. A pleasant, well-planned work environment generally aids in operator productivity and work force stability.

It is generally accepted that the telephone is the best and most effective means for receiving dig notices. There are, however, several types of communication arrangements that should be considered before settling on a specific system.

If the one-call concept is expected to grow from a local operation to one that covers a larger area, consideration should be given to securing a telephone rotary system with spare numbers for future growth. If possible, the key number should be easy to remember, either because of the numbers, or the corresponding letters on the dial.

Careful consideration should be given to selection of a telephone number since advertising and promotion items bear this number. A number change after the system is operating can be expensive because of the need for additional advertising campaigns to re-familiarize users with a new number.

Consideration should be given to using IN-WATS. Although the cost is fixed for a prescribed amount of usage, it is not inexpensive. It may or may not be the best solution, depending on local conditions.

Several systems use a "call collect" arrangement. This system gives true billing, but is slower than In-Wats. As volume grows, it may become more expensive than In-Wats.

No matter which communication system is selected, it should have enough capacity to prevent an excessive number of busy signals. If lines are always busy or not answered quickly, many busy excavators will not use the service. Infrequently used phone lines, however, are an unnecessary cost.

Several firms manufacture call-recording equipment to record conversations on the center's incoming lines. These recorders should be tamper-proof and be equipped with a date and time generator to assist in confirming message accuracy and receipt verification. They can also be helpful in legal proceedings. These units are available in reel-to-reel or cassette form and are multi-track machines which contain anywhere from 2

8, 10, 20, to 40 channels. Careful consideration should be given to the size of these recorders. Long-term requirements should be the major consideration in selection criteria.

The reason for considering long-term growth is that an 8 channel recorder can accommodate 7 lines and one time channel on its one-fourth-inch tape, a 10-channel unit can accommodate 9 lines and one time channel on its one-half-inch tape, but can be expanded to 20 channels. Purchase of an 8-channel machine limits the use of the recorder tape.

As telephone companies convert to Electronic Switching Systems (ESS), new services are becoming available. ESS offices can provide call director systems, monitor and keep track of the number of busy signals, dropped calls, etc. A number of commercial companies also provide equipment which can be purchased to perform those same tasks. A number of those enhancements can provide very cost effective additions to the total center operation. It is very worth-while to investigate these options when planning a new center or, for that matter, in upgrading the operation of an existing center.

#### DEFINING START-UP AND ON-GOING OPERATING COSTS

There are three basic areas to be considered in determining and defining the start-up and on-going costs of a one-call center.

1. Office and Equipment. The key element in this category is accurate projection of the status of your center three to five years from now. The daily work volume will determine your square footage needs and how sophisticated your telecommunications equipment must be. Under-projection of your needs will lead to overcrowding and inefficiency. Over-projections will result in needless expenditures of

capital.

2. Personnel. Determining the costs of a one-call center also calls for careful growth projections. How many operators and how much of a layering of management is needed are important questions to be answered for a stable working environment. Otherwise the costly ingredients of turnover and training will have to be added to your overhead. Once staffing needs have been determined salary scales can be designed to be competitive with the job market in your particular area.
3. Advertising and Promotion. This category of expense is the hardest to measure in terms of effectiveness, thus, this program must be flexible in terms of planning and implementation. The outlay can be minimal or huge in the amount of dollars expended, but as in all other facets of running a successful center, planning is essential. "Getting the word out" best describes the intended bottom line result. Whether this can be done with newsletters, bumper stickers, brochures, slide shows, tricky give-aways, or a combination of all the aforementioned, it must be planned carefully. But as mentioned before, creating an advertising/promotion plan can enable you to get the best possible results for each dollar expended.

## FUNDING

There are a number of methods currently being used to fund the center. Early in the planning phase, the principal members should define a method for "start-up" funding in order to share the initial set-up cost equitably. Generally, a percentage arrangement has been considered equitable. This can be accomplished in several ways, the most popular being equal proration of center

costs among primary participants. An alternative is for larger companies to share a major portion and smaller companies a minor portion of the total billing. This percentage can be determined by miles of facilities, number of customers, or other equitable distribution for each participant.

Some systems fund on a "per-call" basis which is usually on a "message-sent" formula. This means that each participant is charged for the messages sent to that firm or agency. The cost of each message is determined by dividing the cost of the center by the number of outgoing messages. Message costs may also be set as a flat rate per call.

Some systems employ a grid-system rate. They divide their coverage area into grids, and participants pay according to the number of grids in which they have facilities. These grids are further separated into urban and rural grids. Charges for facilities in urban grids are usually higher than those in rural areas.

One-call systems may also include secondary or associate participation. In determining the cost to a new associate member, several methods may be utilized which include most of those already discussed. A popular plan is the "miles of facilities" plan. This gives the new member, basically, a flat rate bill. Annual adjustments are made plus adjustments for placing additional facilities into service or removing them from service.

These rates are on a graduated basis with a customary minimum figure. The divisions are spaced such that in most cases, a significant amount of service would have to be placed or removed before rates would change. Along with this method, some centers have adopted a "cost per trench mile" or "per right-of-way mile" schedule for transmission companies. This allows these companies

a reduced price because of securing right-of-way and depth of facilities. Other centers provide a rate break for water systems, giving them discounts for depth of facilities and for the absence of volatile fluids. However, there is a possibility of inundation from water main breaks which could cause a significant amount of damage.

Another consideration in funding includes providing membership to contractor organizations and insurance companies. In such cases, these companies pay a small fee to be members and do not normally receive any services except access to records as a reference source in damage cases.

Additional methods that are being used by centers for determining charges of active participants are:

1. "Per meter (customer) basis." This should be used only for distribution-type organizations. The pro-rated cost is derived by dividing the cost of the center's operations by the total entities involved with separate billing to each participant.
2. Flat rate billing, each participant pays a flat rate for center participation. The center should be on a definite budget for this type. However, this allows little margin for unforeseen expenditures.
3. Value of plant, in this arrangement each participant estimates the value of his plant and is billed according to its pro-rata share of the total plant.
4. Calls in/calls out, under this plan, the cost of the center is divided by the total incoming call volume, and the percentage of calls sent to each participant is multiplied by this factor to arrive at the cost.
5. Price structure by entity. With this method, each type of service is evaluated and a pricing structure is established for each. Pricing structures may be according to mile, meter, population, or other equitable measure with each participant's fee being determined by the scale for the service which it provides.

All of these systems have merit. None is recommended over another. The rate base should be the one which best fits the economy of the geographic area involved and the needs of the participants. Some centers are, as previously mentioned, now operating with one or a combination of these methods of funding. Regardless of the approach used, a one-call system needs to be adequately funded to produce the desired results.

## EQUIPMENT

In the past, the selection of message forwarding equipment for member notification in a one-call system was very simple. The associated call-volume record keeping was manually produced and there were few problems in maintaining member contact.

As the use of one-call gained in popularity, call volumes increased and so did membership. Centers using only voice contact methodologies were forced into teletype systems and teletype operations began to experience the need for faster means of forwarding notices to members. At the same time, increased call volumes began to exceed the manual record-keeping capabilities of many centers. Compounding the problem, teletype equipment is becoming extremely scarce in some areas, and is inhibiting the growth of one-call association

membership.

Solutions to one-call communications problems were waiting in the wings. Electronic devices such as computers, as well as various types of stand-alone equipment and time-sharing systems, have begun to provide cost-efficient, effective answers to one-call communication and record-keeping needs.

The first computer system configured for a one-call operation was installed in the "Miss Dig" center in Michigan. Since that time a variety of semi-automated, fully automated, and time-sharing systems have been installed in a number of centers.

It would seem that the selection of communication equipment should be relatively simple and straight forward. The market, however, contains a bewildering range of communication devices, incoherent regulations and few, if any, standards for equipment operation or compatibility. Compounding the problem is the fast pace of technological changes in hardware which tends to inhibit equipment selection criteria because of the possibilities of early obsolescence. If we keep in mind that the range of applications for a one-call center is rather narrow, (i.e., store and forward message switching, either direct dial or network), with some statistical reporting for monitoring the systems, the problem becomes less complicated. This definition holds true even if the current concept of one-call operation evolves into other areas. The system will remain basically a communication center even if the clientele is broadened. The key item to keep in mind is that any number of hardware vendors can provide an efficient workable hardware configuration for a center. The most important factor is the software required to run the system and produce the reports necessary to keep track of the operation. Most vendors can supply applications programming or communications programming. few

can adequately supply both. The choice for a vendor then would be predicated on a combination of cost and the vendors' in-house capability in the areas of application and communication programming. The voice telephone, however, remains the basic communication tool for light volume centers.

At the present time the most widely used receivers are Dataspeed 43 R0's and KSR's. These devices are readily available in most parts of the country. Whichever type of device is used, a very efficient maintenance service is a must and should be considered prior to making any equipment agreements. Facsimile devices are becoming more flexible and much faster. Equipment is now available which can be used both as a one-call receiver and a standard facsimile. If testing proves that those new facsimilies are reliable, efficient, and cost effective, it may be that many one-call members might opt for a device that can be used for other purposes as well as for a receiver. It is too early to tell at this time. Finally, most centers will have voice contact requirements to certain members. This is best accomplished with a touch-a-matic telephone wired through the recording device.

The communication channels for sending messages to association members are numerous. Much depends on the call volume and the type of equipment in use. As mentioned above, small call-volume centers can work with voice telephone or when available, teletype networks.

If we assume that some form of automation is being used, there is a choice between full private line network, direct dial, foreign exchange, WATS or business lines, or any combination of the above. Most time-sharing services will require a private-line network. Stand-alone systems may need some combination of line service depending on local conditions and costs. As a rule of thumb, if a single member is

receiving over ninety minutes worth of messages a day, **it** is more cost effective to use a direct private line. If most or all members receive a random number of messages per day amounting to less than ninety minutes hook-up time, a direct dial system is generally more cost effective. The business area covered, the availability of trunking, etc., would determine if some mix of foreign exchange connections would provide additional efficiency and/or savings.

Because costs, conditions, and call volumes vary so greatly, **it** is impossible to set down a system which could be used by all centers. Center management should thoroughly explore the options both with equipment suppliers and the telephone company before reaching any final decisions.

#### **RECORD KEEPING**

There are three over-riding considerations demanding accurate and organized record keeping in a one-call center:

1. Legal ramifications
2. Measurement of activity and growth
3. Financial accountability

Some of the records used to handle these requirements are:

Daily logs of calls received, including time received, caller's company, length of notice given, ticket number, and members notified. Retention of the logs listed above, hard copies of actual tickets transmitted, and tapes of recorded location requests should be of sufficient duration to meet legal requirements.

#### **DOCUMENTATION USEFUL AS TRAINING TOOL**

Documentation may be best defined as having written procedures on hand for all facets of operation of the one-call center. The documentation enables the

center to have a working plan. Thus, from the newest employee to the most experienced, from the lowest level to upper management, all have an idea of what's expected of them and the basic procedures with which to carry out their job.

### **MARKETING A ONE-CALL SYSTEM**

#### **DEFINING THE PRODUCT**

For over ten years, one-call systems have been lauded as damage preventers. The prevention of damage to underground facilities is a culmination of many actions - beginning with the desire of the excavator for certain information and ending with the careful use of that information by the excavator who requested **it** in the first place. The one-call system is a small but certainly central element in the completion of a series of actions by many individual organizations. Each must do its part to ensure a quality plant protection program. The one thing that a one-call system does is deliver a product. That product is information, information in the form of an accurate, rapidly delivered, locate request. Although many ancillary functions are performed, the one thing that every one-call system, manual or automated, contractor or in-house, has in **common**, is the delivery of its primary product, the locate request. Overall, then a successful one-call system must be characterized by the consistent, methodical, and meticulous processing of information.

#### **WHERE IS THE MARKET**

Potential members of one-call systems historically have been the obvious **users**, (i.e., the telephone, gas, and electric companies). Secondly, public works (water and sewer) organizations were involved along with minimal users of the information disseminated, the pipeline and interstate communications operators.

and other local closely developed systems, have begun to be actively involved members. Assuming that there is in existence a core of companies, either actively operating a one-call system or about to form one, the following ideas will be useful in recruiting additional membership.

The technique of asking the right questions is essential, from the outset, in order to gain and maintain control of a situation. You should initially attempt to focus on broad areas of interest, which may not necessarily be yours, but are exclusively those of your potential member. Remember, they are not convinced that they need what you are offering. So, you must gear your thinking to the fact that potential members have their minds set on two things: they have survived thus far without your service and they can probably continue to survive without **it**. Your task will be to change this type of thinking.

In order to maintain the interest you have generated by asking the right questions, you will need to develop a rapport with your potential members. This is not an easy task, but **if** you keep in mind the goal at hand (more members) you will be successful. **It is** absolutely essential that proper business practices are followed and, most important, document your meetings and discussions in a follow-up letter within five days.

**If** your questioning technique was good and your follow-up was done in a timely manner, you will have created a need for your services. **It is** at this point that your potential member is ready to be sold on the services your one-call center has to offer. **If** you have prepared properly, communicated effectively, and offered the services required to fulfill the need, which you have created, you are ready to "close the deal." Always remember that every rejection **is** just another opportunity to broaden your sense of humor.

Everyone in your area of service should be viewed as a potential user of your service. However, just being aware of the potential as defined by population, **is** hardly the same as a concerted effort to determine the base of users who would, as a matter of course, actually place calls to the one-call system. Many services are available to the operators of one-call systems to help in this area, especially direct mail companies, that can provide lists of potential users by type and volume of business and geographic location. In order to create awareness of your service, you must have a written plan of contact for your market. The necessity of follow-through after your plan has been determined cannot be underestimated. Professionally implemented advertising is the single most effective method of encouraging potential excavators to use the service and tie-down necessary to complete your marketing plan of membership and usage.

The time involved in attaining the goals just discussed is considerable. You must plan your work and work your plan. The membership goal should be 100% of all persons excavating. Just because you haven't attained this level within a certain period of operation is no excuse for a marketing plan that is anything less than 100%-determined to reach those goals.

#### **SERVICING THE MARKET**

The one-call center actually has two markets for which **it** provides service. The primary market is the member company that receives the information. The other is the callers' need for the service of the member companies. Many times these are one and the same.

Delivery of the locate request is the primary service to the member company. The method selected to deliver the locate requests to the member companies should incorporate considerations for the size of the individual member,

the expected call volume, and the mode of delivery. A completely effective one-call system, in most instances, will have provisions for voice only, direct dial, and private line services. This will enable the operator to tailor the delivery of the locate request to the individual member's requirements.

The rapid and efficiently completed locate request is the primary service to the user (caller). Properly educated operators are of invaluable assistance to the members. By their courteous and quick handling of calls, use of the system will be encouraged and more calls will result. To this end, much thought needs to be given to the mechanics of the system itself. Proper hardware, software, and transmission systems must be utilized to avoid user stagnation due to long hold-times and the delayed transmission of requests.

The efficiency of the call completion will directly impact all aspects of the call center and will directly assist or hinder the overall marketing efforts. Efficiency of call completion is not merely getting the caller off the line. It is the quick and efficient handling of the call at its inception, the rapid delivery of the locate request to the appropriate companies, and the timely response to the requesting party by the member companies. When each of these items are incorporated correctly, your system will be properly servicing its market, which will make marketing its service much easier.

#### ADVERTISING

One point to keep in mind is this; advertising is a MUST, regardless of the size of the one-call system or its age.

The effectiveness of advertising is only as effective as the level of reinforcement.

The education of member companies on the use of the one-call system is a combination of internal reinforcement (the company) and external reinforcement (the one-call center). Firm guidelines, understood by all, should be agreed upon, documented in writing, and circulated among the member companies to provide everyone with the knowledge of how the system operates. This serves to build uniformity into the system. Operators must be trained to the point of understanding how the system operates, not just the mechanical functions involved in taking and completing a locate request. User education is accomplished by the application of the guidelines agreed upon by the member companies and the one-call center. The consistent application of predetermined guidelines will do more to educate users of the system than any other method of explanation. Of course, personal appearances, speaking opportunities, and participation in trade fairs, seminars, and similar forums should be actively pursued.

The general public will become aware of the one-call system through time and consistent advertising efforts. One essential item for the highest level of success for the one-call center is for member companies not to take locate requests. All calls should be directed to the one-call center. This will reinforce in all callers the awareness of the center and the need for its use.

#### USE OF MEDIA

There are all types of media available for use by the one-call system. Print media, broadcast media, and other methods contribute a great deal to educating the public to the existence of a one-call center. One of the most effective means of information dissemination is by member companies. By combining the

efforts of several members, everyone, public and private, could be reached. This is a method, used annually or semi-annually by many one-call systems.

The availability of public service assistance is easily obtained by knowledgeable operators. Radio, television, and print, time and space, can be created to carry the message to the public, if properly approached.

The use of professional public relation firms (as subcontractors, essentially) should not be overlooked. They are more knowledgeable than the center management or member companies in this regard, and can obtain the desired advertising at no increase in cost while providing a more consistently managed effort.

#### **COST EFFECTIVENESS**

In order to sell something, **it** has to be of benefit to the buyer (or at least he must be persuaded **it** is of benefit). Since there is no charge to the user, normally, the cost effectiveness of a one-call system **is** generally directed toward the member companies.

If several criteria are met, a cost effective opportunity for membership usually exists.

The creation of a cost-effective method of communicating with the member companies should be top priority for the operator of the one-call system, whether **it is** in-house or vendor-operated.

Every effort should be made to provide a level of service which is suitable to the needs of the entire base of **potential** members.

Trying to sell the system on the basis of "fewer cuts or breaks" is too abstract to be effective for all but the most continually affected members. Those are generally telephone, electric, and gas distribution companies whose plant is close to the surface.

Relating the locate request to various permit requirements and the reduction of repair costs or the recapturing of an individual member's personnel are a few of the many ideas used to sell the "cost effectiveness" of one-call membership.

#### **ATTAINING GOALS**

In order to accomplish your goals, you must know what they are! Every successful company or individual has a written plan to achieve predetermined goals. The person or group challenged with the responsibilities of creating growth for a one-call system must have a clear idea of what **it** is that they need to do.

Remember, if it's not in writing and it's not specific, it's not a goal, it's a wish!

Goals must be believable. Anyone can say they'll generate 100% membership. You must be realistic and determined to be successful. Marketing the one-call concept is not unique, one-call is unique. Anyone who is determined to be successful in increasing both membership and usage of their system can be **if** they are prepared, professional, and persistent.

#### **ONE-CALL INDUSTRY TRENDS**

The current state of one-call can best be described by a single word: growth. Nationwide, the majority of one-call centers are reporting expansion in several key areas. The increasing reliance on and continuing growth of one-call systems help prove the effectiveness and value of the one-call concept.

The first area of growth is in the geographic area protected by one-call centers. Due to consolidation or expansion, more of the country is now **served** by an underground notification system.

Second, many one-call centers have reported an increase in the number of

members. Facility-owners/operators in many areas have realized the benefits of belonging to a system and are eager to add another safeguard to their established plant protection program.

Another area of growth is indicated by an increase in the overall call volume experienced by one-call centers. While some have not had as large a jump in number of calls taken as other centers, almost all report at least a modest increase in traffic. It is important to note that, generally speaking, statistics show increased calls mean decreased damages.

Legislation is gaining in popularity as well. Several states have laws requiring mandatory notification from excavators to underground facility owner/operators. Often, the excavator must provide such notification a required number of days in advance. This gives the utility locator time to schedule the markout and ensures that the excavator has planned his work well ahead of time. Due to penalty clauses, excavators may find themselves involved in legal complications if a damage arises due to their failure to notify, or their failure to give the proper advance notification.

The other side of the legislative coin is that all owners/operators of underground facilities may be required to belong to one-call systems as well. Recent federal regulations recommend that all natural gas and petroleum transmissions companies participate in one-call systems, where they exist. One-Call Centers welcome new members for whatever the reason.

Another highly visible trend is for the use of contractor as opposed to in-house management of one-call centers. In contract management, a particular firm or individual is engaged to operate the one-call center. This eliminates the

need for one member to provide housing and employees for the center and in most cases, eases the burden of insurance as the contractor may assume the liability for errors and omissions and the like.

The need to handle and process more and more location requests is being met by computer/automation equipment. The number of one-call centers converting from manual to automated office systems is on the rise and along with it is the need for office managers to be kept up to date on the types and sorts of goods available to them. This is true outside the center as well, extending to the communications/delivery networking system used to link the center with remote utility stations.

Looking further into the future, one of the innovations which may be seen is the use of contractors to mark-out facilities. This has been tried on a limited experimental basis in some areas. A contractor is selected and can be provided with the necessary maps and plans of a particular member. The contractor then handles the field locating for this member. The potential in such a program is great as it opens the door to the possibility of a joint utility marking program. A true "single dispatch" system is envisioned where one individual locates all the buried facilities at an excavation site. The time, equipment, and expense which could be saved by utilities subscribing to such a program would be vast indeed.

It must be emphasized, however, that these locating procedures are being used only on a limited basis with further study being required.

One-call technology is changing rapidly. To obtain the latest information on what's new in one-call, please contact any region representative of the ULOC One-Call Systems International Committee.

## CONCLUSION

The American Public Works Association is a non-profit, professional organization of people involved in the field of public works. The Association is organized around state and regional chapters, with a board of directors and seven institutes which address specialized issues in public works. In addition to these institutes, APWA offers the Utility Location & Coordination Council (ULCC).

ULCC was formed to foster cooperation among public agencies and utilities and to promote policies which would reduce related accidents and damages. A committee of ULCC is the One-Call Systems International (OCSI) Executive Committee.

The OCSI Executive Committee is composed of approximately twenty United States representatives, with international representatives from Canada, the Republic of China, the United Kingdom, and Denmark. The purpose of this committee is to promote the establishment of one-call notification systems and to provide guidance and assistance to such operations.

It is recognized that this manual may not answer all the questions persons new to one-call systems may have. If you have questions or need further guidance please contact your regional representative. The regional representative will be able to provide samples of legislation, operating procedures, bylaws, and contracts. The regions and the representatives serving those areas are listed in the One-Call Systems Directory available through the APWA headquarters, 1313 East 60th Street, Chicago, Illinois 60637.

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**APPENDIX I  
SUPPORT INDUSTRIES**

The following list of companies is provided strictly as a courtesy and is meant to supply contacts in one-call related fields. These firms support the goals and objectives of the One-Call Systems International Committee and have participated as vendors in past symposia on "One-Call Systems and Damage Prevention." Their listing here should not be construed to be an endorsement or recommendation of their products or services.

A. One-Call System Vendor Operators

Academy Computing Corporation  
2601 N.W. Expressway, Suite 110E  
Oklahoma City, OK 73112

Asplundh Underground Location Communication Division  
Blair Mill Road  
Willow Grove, PA 19090

Hood Corporation  
8201 South Sorensen Ave., P.O. Box 4368  
Whittier, CA 90607

One Call Concepts, Inc.  
P.O. Box 196  
Clarksville, MD 21029

Shelton Enterprises, Inc.  
3501 Newland Road  
Baltimore, MD 21218

Tesinc  
1305 North Central Avenue  
Phoenix, AZ 85004

United Information Services  
3 Allegheny Center  
Pittsburgh, PA 15212

Utility Systems Inc.  
P.O. Box 369  
Royal Oak, MI 48068

B. Office Equipment Vendors

Dictaphone Corp.  
120 Old Post Road  
Rye, NY 10580

Lanier Business Products  
1700 Chantilly Drive  
Atlanta, GA 30324

C. Computer/Automated Equipment Vendors

American Bell Inc.  
3 Bala Plaza, West, 6th Flr.  
Bala Cynwyd, PA 19004-3515

BetaCom Corporation  
245 East Sixth Street  
St. Paul, MN 55101

Collier-Jackson & Assoc.  
1805 North Westshore Blvd.  
Tampa, FL 33607

Corn-Squared Systems, Inc.  
278 Chester St.  
St. Paul, MN 55107

TRT Data Products/Norfield Communications Division  
3 Depot Pl./P.O. Box 549  
East Norwalk, CT 06855

Teletype Corporation  
5555 Touhy Ave.  
Skokie, IL 60076

D. Graphics/Mapping Vendors

Graphco  
1815 St. Clair Ave.  
Cleveland, OH 44114

Information Design, Inc.  
1300 Charleston Road  
Mountain View, CA 94043

E. Field Equipment (Paint, Sign, Stakes, etc.)

Aervoe Pacific Company, Inc.  
P.O. Box 1238  
Indian Rocks Beach, FL 33535

Berntsen Cast Products, Inc.  
P.O. Box 8666  
Madison, WI 53708

Carsonite International Corp.  
2900 Lockheeh Way  
Carson City, NV 89701

Eastern Metal of Elmira, Inc.  
1430 Sullivan Street  
Elmirs, NY 14901

Muir Omni-Graphics  
716 West Main Street  
Peoria, IL 61606

Seymour of Sycamore, Inc.  
917 Crosby Avenue  
Sycamore, IL 60178

W.H. Rady Co., Signmark (TM) Division  
727 West Glendale Ave.  
Milwaukee, WI 53201

**F. Locating Equipment**

Automation Products Co.  
11705 Research Blvd., P.O. Box 9429  
Austin, TX 78766

Dynatel Department/3M  
380 North Pastoria Avenue  
P.O. Box 60549  
Sunnydale, CA 60549

Fisher Research Laboratory  
1005 I Street  
Los Banos, CA 93635

Goldak Company  
626 Sonora Avenue  
Glendale, CA 91207

Heath Consultant  
P.O. Box 456, 100 Tosca Drive  
Stoughton, MA 02072

Metrotech Corporation  
670 National Avenue  
Mountain View, CA 94043

Progressive Electronics  
432 South Extension Road  
Mesa, AZ 85202

Radar Engineers  
4654 North East Columbia Blvd.  
Portland, OR 97218

Radiodetection Corporation  
32 South Broad Street  
Ridgewood, NY 07450

Schonstedt Instrument Company  
1775 Wiehle Avenue  
Reston, VA 22090

Triple D Marketing Corporation  
8201 West 14th Avenue  
Lakewood, CO 80215

Utility Tool Company  
2900 Commerce Blvd.  
Birmingham, AL 36210

G. Specialty Advertising Vendors

Barger Advertising Specialties, Inc.  
123 C Leisure La., Rte #6  
Gainsville, GA 30506

Premiums & Promotions, Inc.  
211 North 5th Street  
Columbus, OH 43215

National Specialties  
4350 South Washington Avenue  
Tacoma, WA 98409

Von Senden Company  
1844 Ardmore Blvd.  
Pittsburgh, PA 15221

## APPENDIX II

### AUDIO VISUAL AIDS AVAILABLE

Almost every one-call system has some sort of visual aid to promote and explain use of the plant protection service they provide. **It** may be in the form of a slide show, a 16 mm or 8 mm movie, a video tape or even a 60 second taped jingle used during radio spots. Much can be learned about the workings of other one-call systems and many ideas can be generated for your own system by viewing these materials. Three highly recommended films are:

1. "What's **it** going to cost you?" - This film looks at what happens when excavators neglect to notify buried plant owners prior to digging. **It** sets up a situation ripe for the implementation of a one-call system. (Price: \$350).
2. "Did I make the call?" - This film examines how a one-call system, once established, works. **It** takes you from the placement of the call right through to the field markings provided on the work site. **It** also explains what a one-call system can do for you. (Price: \$500).
3. "Who's Responsible?" - This film is a motivational film to be shown to homeowners, excavators, utility personnel or whomever else may do any digging. The consequences of not calling are depicted. (Price: \$250).

New media programs are constantly being created and the old ones are continually being updated. Therefore, rather than attempting to compile a complete list of presentations available, **it** is suggested that you contact the One-Call Systems International Committee person who represents your region. He or she will do their best to help ascertain what is currently available and then help you obtain **it**.

## APPENDIX III

### SUPPLEMENTARY READING MATERIAL

1. One-Call Systems Directory - Published and updated on an annual basis, this book contains pertinent information on one-call systems world wide. System contact names and numbers, information on legislation, and a listing of region representatives for the OCSI Committee are also included.
2. Subsurface Utility Facilities Location Techniques and Detection Devices - Produced by APWA's Utility Location and Coordination Council, this book examines the how to's of underground facility locating. **It** includes a detection device directory which lists equipment available, approximate costs, and helpful remarks about the devices.

Both these booklets are available from the American Public Works Association

## APPENDIX C

### ONE-CALL SYSTEMS DIRECTORY, 1984-1985

# ONE-CALL SYSTEMS

\$1.00

## 1984-85 DIRECTORY



AMERICAN PUBLIC WORKS ASSOCIATION  
UTILITY LOCATION & COORDINATION COUNCIL  
1313 EAST 60TH STREET CHICAGO, ILL. 60637 (312)687-2200

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of the APWA.

# American Public Works Association UTILITY LOCATION AND COORDINATION COUNCIL



Cooperative Members are organizations affiliated with the Council which have appointed an official representative to serve as a member of the ULCC Advisory Panel. Presently represented are:

Alliance of American Insurers  
 American Association of State Highway and Transportation Officials  
 American Congress on Surveying and Mapping  
**American Gas Association**  
 American Insurance Association  
 American Petroleum Institute  
 American Public Gas Association  
**American Public Power Association**  
**American Road and Transportation Builders Association**  
 American Society of Civil Engineers  
 American Society of Mechanical Engineers  
 American Society of Photogrammetry  
 American Society of Safety Engineers  
**American Water Works Association**  
**Associated General Contractors of America**  
**Distribution Contractors Association**  
**Edison Electric Institute**  
**International Right of Way Association**  
**International Union of Operating Engineers**  
 Interstate Natural Gas Association of America  
**National Association of Home Builders**  
 National Association of Regulatory Utility Commissioners  
 National Utility Contractors Association  
**Pipe Line Contractors Association**  
 Power and Communication Contractors Association  
 Roads and Transportation Association of Canada  
 Water Pollution Control Association

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### **The APWA Uniform Color Code**

Utility and Type of Product with Specific Group Identifying Color

#### **Safety Red**

Electric power, distribution, and transmission  
Municipal electric systems

#### **High Visibility Safety Yellow**

Gas distribution and transmission  
Oil distribution and transmission  
Dangerous materials, product lines, steam lines

#### **Safety Alert Orange**

Telephone and telegraph systems  
Police and fire communications  
Cable television

#### **Safety Precaution Blue**

Water systems  
Slurry pipe lines

#### **Safety Green**

Sewer systems

## **One-Call System Definition**

### **What Is It?**

It is a communication system established by two or more utilities, governmental agencies or other operators of underground facilities to provide one telephone number for excavating contractors and the general public to call for notification of their intent to use equipment for excavating, tunneling, demolition or any other similar work. This one-call system provides the participating members an opportunity to identify and locate their underground facilities.

### **Why Is It Needed?**

Damage to underground facilities increased considerably following the building boom of the '50s, '60s and early '70s when the trend was to go underground with utilities. Thousands of miles of underground facilities were vulnerable to excavating machines such as backhoes and the resulting damage interrupted utility service and threatened life, health and property.

### **How To Get It**

Write or call the member of ULCC One-Call Systems International Committee representing the area within your APWA region shown on the map. He will be pleased to assist you. For further information on ULCC programs, write APWA headquarters.

### **Disclaimer**

The purpose of this Directory is to illustrate the extent of one-call service available. The accuracy of information is not guaranteed by APWA or the one-call systems. Users must verify information including the extent and limit of service from local sources.

## ULCC One-Call Systems International Committee

CHAIRMAN: Tom Odegaard — Utilities Underground Location Center; 12951 Bel-Red Road, Bellevue, WA 98005, (206) 454-6888.

VICE-CHAIRMAN: Jeff L. Hogner — Panhandle Eastern Pipeline Company; P.O. Box 68780, Indianapolis, IN 46268, (317) 293-1452.

SECRETARY Claudette Campbell — Utilities Protection Center; 276-100 Perimeter Center Place, Atlanta, GA 30346, (404) 391-5780.

LEGAL ADVISOR William P. Boswell — The Peoples Natural Gas Company; 14th Floor - Two Gateway Center, Pittsburgh, PA 15222, (412) 71-5100, ext. 318.

### United States Representatives

#### Tennessee

Leamon Andrews — Tennessee One Call System, Inc.; 293 Plus Park Blvd., Suite E, Nashville, TN 37217, (615) 367-0625

#### Georgia, North Carolina, South Carolina

Claudette Campbell — Utilities Protection Center; 276-100 Perimeter Center Place, Atlanta, GA 30346, (404) 391-5780.

#### New York

Robert Foster — Underground Facilities Protection Org.; 3650 James Street, Syracuse, NY 13206, (315) 45-5355.

#### Ohio, Michigan

Richard Fremion — Panhandle Eastern Pipeline; 25419 Paulding, Monroeville, IN 46773, (219) 623-6118.

#### New Mexico, Arizona, Texas

Richard Heller — DMJM/Adam, Hamlyn, Anderson; 4055 Montgomey Blvd. NE, Suite A, Albuquerque, NM 87109, (505) 881-1808.

#### Northern California, Nevada

John Heyer — USA North; 2190 Meridian Park Blvd., Concord, CA 94520, (415) 798-9504.

#### Missouri, Indiana, Illinois, Kentucky

Jeff L. Hogner — Panhandle Eastern Pipeline Company; P.O. Box 68780, Indianapolis, IN 46268, (317) 293-1452.

#### Wisconsin

Susan Horejs — Diggers Hotline; 2040 West Wisconsin Avenue, Suite 380, Milwaukee, WI 53233, (414) 344-7398.

#### Southern California, Hawaii

Mark Hoyal — USA South; 320 North Wilshire, Anaheim, CA 92801, (714) 956-5230.

#### Maine, Vermont, New Hampshire, Massachusetts, Rhode Island

John G. Kelley, Jr.; 501-245 State Street, Boston, MA 02109, (617) 574-1793.

#### Pennsylvania, New Jersey, West Virginia

Bill Kiger — Pennsylvania One Call System, Inc.; Three Allegheny Center, Pittsburgh, PA 15212, (412) 323-7111.

#### Florida, Puerto Rico

Jan Klatt — Call Candy; 610 Morgan Street, MC-1795, Tampa, FL 33602, (813) 224-7750.

#### Colorado, Wyoming

Jay M. Kole — City of Fort Collins; P.O. Box 580, Fort Collins, CO 80522, (303) 221-6605.

#### North Dakota, South Dakota, Nebraska, Minnesota, Iowa

Clarence Leikam — Northwestern Bell; 200 South Fifth Street, Minneapolis, MN 55402, (612) 344-4451.

#### Oklahoma, Kansas

Lee Marrs — Academy Computing Corporation; 2601 NW Expressway, Suite 110E, Oklahoma City, OK 73112, (405) 340-2791.

#### Alabama, Mississippi, Louisiana, Arkansas

Joy Moore — Alabama Line Location Center; 205-55 Bagby Drive, Birmingham, AL 35209, (205) 372-3986.

#### Oregon, Washington, Idaho, Alaska

Tom Odegaard — Utilities Underground Location Center; 12951 Bel-Red Road, Bellevue, WA 98005, (206) 454-6888.

#### Connecticut

Steve Rieben — Call Before You Dig; 105 Sanford Street, Hamden, CN 06514, (203) 281-3702.

#### Utah, Montana

Roger Swenson — Blue Stake Center; 2880 South Main, Central Park Plaza, Suite 117, Salt Lake City, UT 84115, (801) 487-6861.

Delaware, Maryland, District of Columbia, Virginia  
Melvin R. Wyatt — Miss Utility of Delmarva; 146 South State Street, Dover,  
DE 19901, (302)678-1421.

### International Representatives

Eastern Canada  
(New Brunswick, Quebec, Nova Scotia, Newfoundland)  
Jean Fortin — Bell Canada; 1050 University Avenue, Room 435,  
Montreal, Quebec, (514)870-4763.

Western Canada  
(Alberta, British Columbia, Saskatchewan, Manitoba)  
Scott P. Henley — Alberta One Call Location Corporation; Box 14, Canadian  
Western Center, 909-11 Avenue S.W., Calgary, Alberta T2R 1L8,  
(403)245-9993.

Republic of China - All Territories  
Kenneth Hsi — Ministry of Communications; 42 Jue Ai Road, Section 1,  
Taipei, Taiwan, 100, Rep. of China.

United Kingdom  
Richard T. Nitze — Secretary, National Joint Utilities Group, The Electricity  
Council; Engineering Dept., 30 Millbank, London, SW1P 4RD, United  
Kingdom.

Denmark  
Bo Linneke — Cables, Posts and Telegraphs, Long Lines Office, Valden-  
dorfsgade 9, DK-1151, Kobenhaven, K.

## One Call Systems

### 1. ALABAMA

- 1a. **MISS ALL** (Alabama Line Location Center)  
Center # 1-800-292-8525 (in Alabama)  
Contact # (205)972-3986  
3196 Highway 280 South, Room 103N, Birmingham, AL 35243  
Steve Fraas, Supervisor  
In-House/26 Members/Statewide  
Coverage: 51,609 sq. mi./95% population  
Legislation: No; Request Time: 48 hours

### 2. ALASKA

### 3. ARIZONA

- 3a. **BLUE STAKE** (Phoenix)  
Center # (602)263-1100  
Contact # (602)234-2023  
3105 N. Third Street, Phoenix, AZ 85012  
Jim Gronek  
Contract/20 Members/Maricopa County  
Coverage: 55.7% population  
Legislation: Yes; Request Time: 2 work days

- 3b. **BLUE STAKE CENTER** (Sierra Vista)  
Center # (602) 458-6900;  
Contact # (602) 235-3155 Al Meins  
(602)234-2023 Jim Gronek  
150 Wilkos Drive, Sierra Vista, AZ 85635  
Al Meins, Jim Gronek  
Contract/6 Members/Sierra Vista Area  
Coverage: 57% population  
Legislation: Yes; Request Time: 2 work days

- 3c. **BLUE STAKE** (Cottonwood)  
Center # (602)634-2717;  
Contact # (602)235-3155 Al Meins  
(602)234-2023 Jim Gronek  
322 South Sixth Street, Cottonwood, AZ 86326  
Al Meins, Jim Gronek  
In-House/4 Members/Cottonwood, Sedona, Campe Verde  
Coverage: 1.7% population  
Legislation: Yes; Request Time: 2 work days

3d. **BLUE STAKE (Prescott)**  
 Center # (602) 778-0050;  
 Contact # (602) 235-3155 Al Meins  
 (602) 234-2023 Jim Gronek  
 255 East Gurley Street, Prescott, AZ 86301  
 Al Meins, Jim Gronek  
**In-House/6 Members/Prescott Area**  
 Coverage: 1% population  
 Legislation: **Yes**; Request Time: 2 work days

3e. **BLUE STAKE (Tucson)**  
 Center # (602) 792-2211;  
 Contact # (602) 235-3155 Al Meins  
 (602) 234-2023 Jim Gronek  
 P.O. Box 26500, Tucson, AZ 85726  
 Al Meins, Jim Gronek  
 Contract/10 Members/Tucson Area  
 Coverage: 18% population  
 Legislation: **Yes**; Request Time: 2 work days

3f. **BLUE STAKE (Flagstaff)**  
 Center # (602) 779-5139  
 Contact # (602) 235-3155 Al Meins  
 (602) 234-2023 Jim Gronek  
 1421 South Milton, Flagstaff, AZ 86002  
 Al Meins, Jim Gronek  
 Contract/6 Members/Flagstaff Area  
 Coverage: 2% population  
 Legislation: **Yes**; Request Time: 2 work days

#### 4. ARKANSAS

4a. **ARKANSAS ONE CALL SYSTEM, INC.**  
 Center # 1-800-482-8998; Contact # (501) 225-3914  
 P.O. Box 56373, Little Rock, AR 72205  
 Dale Enoch, Manager  
 Contract/45 Members  
 Coverage: Statewide  
 Legislation: No; Request Time: 48 hours

#### 5. CALIFORNIA

5a. **USA SOUTH (Underground Service Alert)**  
 Center # 1-800-422-4133; Contact # (714) 956-5230  
 320 North Wilshire, Anaheim, CA 92801  
 Mark Hoyal, President  
**In-House/253 Members**  
 Coverage: 9 Counties  
 Legislation: **Yes**; Request Time: 2 working days

5b. **USA NORTH (Underground Service Alert)**  
 Center # 1-800-642-2444; Contact # (415) 798-9504  
 2190 Meridian Park Blvd., Concord, CA 94520  
 Mike Hoyer  
**Contract/212 Members**  
 Coverage: 50 Counties  
 Legislation: **No**; Request Time: 2 working days

#### 6. COLORADO

6a. **MESA COUNTY BURIED UTILITIES LOCATION SERVICE**  
 Center # (303) 245-2555; Contact # (303) 244-4325  
 619 Main, Grand Junction, CO 81501  
**Contract/Members/Grand Valley Area**  
 Legislation: **Yes**; Request Time: 2 working days

6b. **BLUESTAKE**  
 Center # (303) 534-6700; Contact # (303) 571-3730  
 Room 203, 1123 West Third Avenue, Denver, CO 80223  
**In-House/12 Members/Denver Metro Area**  
 Legislation: **Yes**; Request Time: 2 working days

6c. **CENTRAL LOCATING UNIT**  
 Center # (303) 636-5333  
 350 Karen Lane, Colorado Springs, CO 80909  
**In-House/4 Members/Metro Area**  
 Legislation: **Yes**; Request Time: 2 working days

6d. **FORT COLLINS-LOVELAND ONE CALL**  
 Center # (303) 484-0300; Contact # (303) 221-6605  
 700 Wood Street, Fort Collins, CO 80521  
 Jay M. Kole  
**In-House/6 Members/Larimer County**  
 Legislation: **Yes**; Request Time: 2 working days

#### 7. CONNECTICUT

7a. **CALL BEFORE YOU DIG**  
 Center # 1-800-922-4455 (In-state)  
 (203) 281-5435 (Out-of-state)  
 Contact # (203) 281-3702  
 105 Sanford Street, Hamden, CT 06514  
 Stephen G. Rieben, Manager  
 Contract/296 Members  
 Coverage: Statewide  
 Legislation: **Yes**; Request Time: 2 working days

## 8. DELAWARE

- 8a. "MISS UTILITY" OF DELAMARVA  
 Center # 1-800-282-8555 (In-state)  
 1-800-441-8355 (Out-of-state)  
 Contact # (302) 678-1421  
 146 S. State Street, Dover, DE 19901  
 Melvin R. Wyatt  
**In-House/22** Members  
 Coverage: Delmarva Peninsula  
 Legislation: Yes; Request Time: 2 working days

## 9. FLORIDA

- 9a. "CALL CANDY"  
 Center # 1-800-282-8881; Contact # (813) 224-7750  
 610 Morgan St., MC-1795, Tampa, FL 33602  
 Jan Klatt, Manager  
**In-House/25** Members  
 Coverage: 7 Counties  
 Legislation: Yes; Request Time: 2 working days
- 9b. CALL U.N.C.L.E. (Utility Notification Center)  
 Center # 1-800-432-4775; Contact # (305) 492-3127  
 Room 505, 6451 N. Federal Highway, Ft. Lauderdale, FL 33308  
 Charles C. Kimbrell  
**In-House/28** Members  
 Coverage: 6 Counties  
 Legislation: Yes; Request Time: 2 working days
- 9c. UNDERGROUND UTILITIES NOTIFICATION CENTER  
 Center # (305) 264-6820; 1-800-432-4160  
 Contact # (305) 264-6878  
 Room 359, 666 Northwest 79th Avenue, Miami, FL 33126  
 Charles C. Kimbrell, Manager  
**In-House/14** Members  
 Coverage: Dade County  
 Legislation: Yes; Request Time: 2 working days
- 9d. CALL BEFORE YOU DIG  
 Center # (904) 877-6688; Contact # (904) 599-1352  
 P.O. Box 2214, Tallahassee, FL 32304  
 Bill McGlamery, Manager  
**In-House/5** Members  
 Coverage: 4 Counties  
 Legislation: Yes; Request Time: 24 hours

## 10. GEORGIA

- 10a. UTILITIES PROTECTION CENTER  
 Center # 1-800-282-7411; (404) 325-5000 Metro Atlanta  
 Contact # (404) 391-5780  
 276-100 Perimeter Center Pl., Atlanta, GA 30346  
 Claudette L. Campbell, Manager  
**In-House/62** Members  
 Coverage: Statewide  
 Legislation: Yes; Request Time: 3 working days

## 11. HAWAII

## 12. IDAHO

- 12a. PALOUSE EMPIRE UNDERGROUND COORDINATING COUNCIL  
 Center # (208) 882-1794 Contact # (509) 332-2911  
 122 East 4th Street, Moscow, ID 83843  
 Van Lybyer  
**In-House/7** Members  
 Coverage: Latah County  
 Legislation: No; Request Time: 24 hours
- 12b. UTILITIES UNDERGROUND LOCATION CENTER  
 Center # 1-800-426-1444 (In-state)  
 1-800-424-5555 (In Washington)  
 Contact # (206) 454-6888  
 1251 Bel-Red Road, Bellevue, WA 98005  
 Tom Odegaard  
 Contract/13 Members  
 Coverage: 6 Counties  
 Legislation: No; Request Time: 2 working days
- 12c. DIG-LINE  
 Center # (208) 343-6700; Contact # (208) 85-2512  
 1315 W. Amity, Boise, ID 83707  
 Ebb Banks  
 Contract/6 Members  
 Coverage: 3 Counties  
 Legislation: No; Request Time: 48 hours
- 12d. PANHANDLE UTILITY COORDINATING COMMITTEE  
 Center # ZE-9169; Contact # (208) 765-4451  
 General Telephone, I & M Dept.,  
 P.O. Box 1057, Coeur D'Arline, ID 83814  
 Bob Van Skyock  
 Contract/17 Members  
 Coverage: 3 Counties  
 Legislation: No; Request Time: 24 hours

**13. ILLINOIS**

## 13a. J.U.L.I.E.

Center # 1-800-892-0123; Contact # (815)740-4500  
 Suite 218,3033 W. Jefferson, Joliet, IL 60435  
 Larry Pattenau  
 Contract/150 Members  
 Coverage: Statewide except Chicago  
 Legislation: No; Request Time: 2 working days

## 13b. DIGGER (Chicago Utility Alert Network)

Center # (312) 744-7000; Contact # (312) 744-4062  
 Room 802, 121 N. LaSalle, Chicago, IL 60602  
 Fred Stone  
 In-House/6 Members/Chicago Area  
 Coverage: 1,400 sq. mi./26% population  
 Legislation: No; Request Time: 2 working days

**14. INDIANA**

## 14a. INDIANA UNDERGROUND PLANT PROTECTION SERVICE, INC.

Center # 1-800-382-5544;  
 1-800-428-5200 (Out-of-state)  
 Contact # (317) 842-8378  
 Suite 205,6535 E. 82nd Street, Indianapolis, IN 46250  
 Herman E. Keese, Manager  
 Contract/84 Members/Statewide  
 Coverage: 36,291 sq. mi./100% population  
 Legislation: No; Request Time: 48 hours

**15. IOWA**

## 15a. UNDERGROUND PLANT LOCATION SERVICE, INC.

Center # 1-800-292-8989 (In-state);  
 1-800-248-2013 (Out-of-state)  
 Contact # (319) 326-3829  
 2711 West 63rd Street, Davenport, IA 52806  
 Bill Burbridge  
 Contract/26 Members  
 Coverage: Statewide  
 Legislation: No; Request Time: 2 working days

**16. KANSAS**

## 16a. KANSAS ONE CALL CENTER

Center # 1-800-DIG-SAFE; Contact # (316)687-4286  
 1097 Parklane, Wichita, KS 67218  
 Earlene Lumrey  
 Contract/82 Members  
 Coverage: Statewide  
 Legislation: No; Request Time: 48 hours

**17. KENTUCKY**

## 17a. BUD (Before-U-Dig)

Center # 1-800-752-6007; Contact # (502)582-8239  
 P.O. Box 32410, 521 W. Chesnut, Louisville, KY 40232  
 Rendi Mann-Stadt  
 In-House/25 Members  
 Coverage: Statewide except Cincinnati Bell Area  
 Legislation: No; Request Time: 48 hours

**18. LOUISIANA**

## 18a. DOTTIE (Dial One Time to Inform Everyone)

Center # 1-800-272-3020 (In-state); Contact # (504) 383-7474  
 Room 402,525 Florida Street, Baton Rouge, LA 70801  
 Harold J. Burke, Manager  
 Contract/80 Members  
 Coverage: Statewide  
 Legislation: No; Request Time: 48 hours

**19. MAINE**

## 19a. DIG-SAFE

(See 21a Massachusetts)  
 Center # 1-800-225-4977 (In-state);  
 (617)229-2770 (Out-of-state)  
 Legislation: Yes; Request Time: 48 hours

**20. MARYLAND**

## 20a. MISS UTILITY

Center # (301) 559-0100; Contact # (301)779-7334  
 6505 Belcrest Road, Suite 7, Hyattsville, MD 20782  
 Tom Hoff  
 Contract/29 Members  
 Coverage: Northern Virginia, Maryland & Washington, D.C.  
 Legislation: Yes; Request Time: 2 working days

20b. **"MISSUTILITY" OF DELMARVA**  
 Center # 1-800-282-8555 (In-state);  
 1-800-441-8355 (Out-of-state)  
 Contact # (302) 678-1421  
 146 S. State Street, Dover, DE 19901  
 Melvin R. Wyatt  
**In-House/22** Members  
 Coverage: Eastern Maryland  
 Legislation: **Yes**; Request Time: 2 working days

## 21. MASSACHUSETTS

21a. DIG-SAFE  
 Center # 1-800-322-4844; Contact # (617) 229-2770  
 Corporate Place 14, 111 S. Bedford St., Burlington, MA 01802  
 Contract/80 Members  
 Coverage: ~~Maine~~, Massachusetts, New Hampshire, Vermont,  
 Rhode Island  
 Legislation: **Yes**; Request Time: 72 hours

## 22. MICHIGAN

22a. MISS DIG  
 Center # 1-800-482-7171 (In-state);  
 (313) 647-7344 (Out-of-state)  
 Contact # (313) 649-4301  
 4600 Coolidge Highway, Royal Oak, MI 48068  
 Mike Digon  
 Contract/483 Members  
 Coverage: statewide  
 Legislation: **Yes**; Request Time: 2 working days

## 23. MINNESOTA

## 24. MISSISSIPPI

24a. MISSISSIPPI ONE CALL CENTER  
 Center # 1-800-227-6477; Contact # (601) 362-4322  
 2906 N. State Street, Jackson, MS 39216  
 Sam Johnson  
**Contract/55** Members  
 Coverage: Statewide  
 Legislation: No; Request Time: 48 hours

## 25. MISSOURI

25a. TO BEGIN  
 Center # (417) 862-3446, Contact # (417) 831-8541  
 Jewell Station, P.O. Box 551, Springfield, MO 65801  
 Wendell Jones, P.E./Richard Cox, L.S.  
**In-House/4** Members/Springfield Area  
 Legislation: Yes; Request Time: 48 hours

## 26. MONTANA

## 27. NEBRASKA

27a. ONE CALL COVERS ALL  
 Center # (402) 344-3565,  
 1-800-642-8434 (in WATS)  
 Contact # (402) 558-0041  
 910 North 43rd Avenue, Omaha, NE 68131  
 Lou Mayberry  
**In-House/9** Members  
 Coverage: Metro Omaha (Statewide for Telephone Co. only)  
 Legislation: No; Request Time: 2 working days

27b. LINCOLN UTILITIES COORDINATING COUNCIL  
 Center # (402) 477-0547; Contact # (402) 476-5349  
 P.O. Box 81309, Lincoln, NE 68501  
 Don Williams  
**In-House/5** Members  
 Coverage: Lincoln Area  
 Legislation: No; Request Time: 24 hours

## 28. NEVADA

28a. USA NORTH (Underground Service Alert)  
 Center # 1-800-227-2600, Contact # (415) 798-9504  
 J.G. Heyer, Manager  
 Contract/212 Members  
 Coverage: statewide  
 Legislation: No; Request Time: 2 working days

## 29. NEW HAMPSHIRE

29a. DIG-SAFE  
 (See 21a Massachusetts)  
 Center # 1-800-225-4977 (In-state);  
 (617) 229-2770 (Out-of-state)  
 Legislation: **Yes**; Request Time: 72 hours

### 30. NEW JERSEY

#### 30a. GARDEN STATE UNDERGROUND PLANT LOCATION SERVICE, INC.

Center # 1-800-272-1000(In-state);

(201)232-1232 (Out-of-state)

Contact # (201) 232-9559

2450 Westfield Avenue, Scotch Plains, NJ 07076

Anthony Chiaramonte, Manager

Contract/32 Members/Statewide

Coverage: 7,520 sq. mi./100% population

Legislation: Yes; Request Time: 3 days

### 31. NEW MEXICO

#### 31a. BLUE STAKE (Farmington)

Center # (505) 327-3777; Contact # (505) 327-7711

P.O. Box 900, Farmington, NM 87401

Chuck Gile, Utility Council President

In-House/9 Members

Coverage: 1 County

Legislation: Yes; Request Time: 24 hours

#### 31b. BLUE STAKE (Grants-Milan Utility Council)

Center # (505) 287-9292; Contact # (505) 285-4621

P.O. Box 879, Grants, NM 87020

Dave Bryant, Utility Council President

In-House/6 Members

Coverage: 1 County

Legislation: Yes; Request Time: 2 working days

#### 31c. BLUE STAKE (Albuquerque)

Center # (505) 765-1234, Contact # (505) 766-7467

Room 403, City Hall, 400 Marquette Avenue, NW,  
Albuquerque, NM 87103

Thomas A. Shaffer, Coordinator

In-House/15 Members

Coverage: 6 Counties

Legislation: No; Request Time: 2 working days

#### 31d. BLUE STAKE (Gallup)

Center # (505) 863-3330 Contact # (505) 268-7104

P.O. Box 1270, Gallup, NM 87301

Don Jordan, Utility Council Secretary

In-House/6 Members

Coverage 1 County

Legislation Yes, Request Time 2 working days

#### 31e. BLUE STAKE (Santa Fe)

Center # (505) 988-8841; Contact # (505) 471-0056

P.O. Box 1389, Santa Fe, NM 87501

Tom Peny, Utility Council President

In-House/5 Members

Coverage: 2 Counties

Legislation: Yes; Request Time: 24 hours

#### 31f. BLUE STAKE (Las Vegas)

Center # (505) 425-3898, Contact # (505) 425-5843

P.O. Box 150, Las Vegas, NM 87701

Bill Swift, Supervisor

In-House/3 Members

Coverage: 1 County

Legislation: Yes; Request Time: 24 hours

#### 31g. BLUE STAKE (Zuni)

Center # (505) 782-4411; Contact # (505) 782-4411

P.O. Box 466, Zuni, NM 87327

Dick Lenius, Manager

In-House/5 Members

Coverage: 1 County

Legislation: Yes; Request Time: 24 hours

#### 31h. BLUE STAKE (Roswell)

Center # (505) 622-1234; Contact # (505) 622-3838

D.E. McDaniel

In-House/5 Members

Coverage: Roswell and vicinity

Legislation: Yes; Request Time: 2 working days

### 32. NEWYORK

#### 32a. UTILITY COORDINATING COMMITTEE

Center # 1-800-962-7962; Contact # (716) 442-2000

89 East Avenue, Rochester, NY 14649

Ray Ottman, Committee Chairman

Contract/6 Members

Coverage: 5 Counties

Legislation: Yes; Request Time: 2 working days

#### 32b. UNDERGROUND FACILITIES PROTECTION ORGANIZATION, INC.

Center # (315) 437-7333; 1-800-962-7962;

Contact # (315) 696-5855

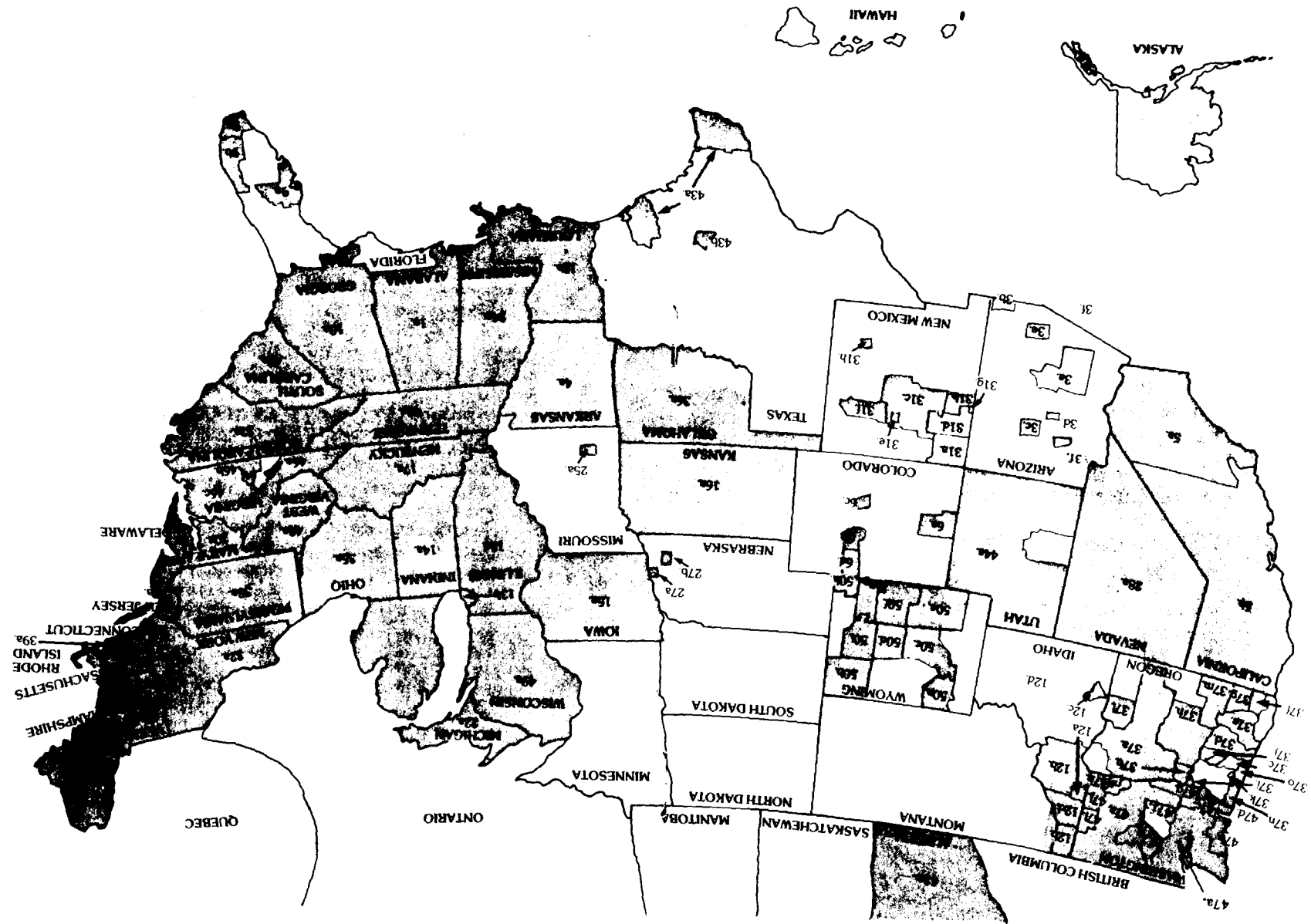
3650 James Street, Syracuse, NY 13206

Bob Foster, Chairman

Contract/50 Members

Coverage: 38 counties

Legislation: Yes; Request Time: 2 working days



32c. UNDERGROUND UTILITY LOCATING SERVICE  
Center # (716) 893-1133; Contact # (716) 849-0785  
Room 400, Convention Tower, Buffalo, NY 14202  
**Beverly Josephs**  
Contract/5 Members  
Coverage: 8 Counties  
Legislation: Yes; Request Time: 2 working days

32d. UNDERGROUND UTILITIES CALL CENTER  
Center # 1-800-245-2828; Contact # (412) 323-7111  
Three **Allegheny** Center, Pittsburgh, PA 15212  
William G. Kiger, Director of Operations  
Contract/17 Members  
Coverage: 9 Counties  
Legislation: Yes; Request Time: 2 working days

32e. UTILITY CALL CENTER  
Center # (516) 661-6000; Contact # (516) 231-6500  
780 Sunrise Highway, W. Babylon, NY 11704  
M.R. Neuwirth  
Contract/2 Members  
Coverage: 3 Counties  
Legislation: Yes; Request Time: 2 working days

### 33. NORTH CAROLINA

33a. UTILITIES LOCATION CO., INC. "ULOCO"  
Center # 1-800-632-4949; Contact # (919) 855-5760  
Suite 110, 2306 W. Meadowview Road, Greensboro, NC 27407  
Carolyn Carter, Manager  
Contract/50 Members  
Coverage: Statewide  
Legislation: No; Request Time: 48 hours

### 34. NORTH DAKOTA

### 35. OHIO

35a. OHIO UTILITIES PROTECTION SERVICE  
Center # 1-800-362-2764; Contact # (216) 744-5191  
City Center **One**, 100 Federal Plaza E, Youngstown, OH 44503  
Chuck Gabriel, Manager  
In-House/62 Members  
Coverage: Statewide  
Legislation: No; Request Time: 2 working days

35b. UNITED UTILITIES PROTECTION SERVICE  
Center # (513) 397-4664; Contact # (513) 397-3441  
201 E. 4th **Street**, Room 274, Cincinnati, OH 45201  
Jim Hodde  
In-House/2 Members  
Coverage: 7 Counties  
Legislation: No

### 36. OKLAHOMA

36a. OKLAHOMA ONE-CALL SYSTEM, INC.  
Center # 1-800-522-6543; Contact # (405) 840-9955  
Suite 261, 6161 North May Avenue, Oklahoma City, OK 73112  
James A. Hill, Executive Director  
Contract/130 Members  
Coverage: Statewide  
Legislation: Yes; Request Time: 48 hours

### 37. OREGON

37a. UTILITIES UNDERGROUND LOCATION CENTER  
Center # 1-800-424-5555; Contact # (206) 454-6888  
12951 Belp-Red Road, Bellevue, WA 98005  
Tom Odegaard  
Contract/14 Members  
Coverage: 9 Counties  
Legislation: No; Request Time: 2 working days

37b. WASCO COUNTY UNDERGROUND COORDINATING COUNCIL  
Center # (503) 298-5152; Contact # (503) 296-2060  
P.O. Box 599, The Dalles, OR 97058  
Contract/12 Members  
Coverage: Wasco County  
Legislation: No; Request Time: 24 hours

37c. LINN BENTON UTILITIES COORDINATING COUNCIL  
Center # (503) 752-8631; Contact # (503) 929-3124  
P.O. Box 1664, Corvallis, OR 97339  
**Mel Rowie**  
Contract/9 Members  
Coverage: Benton & NW Linn County  
Legislation: No; Request Time: 24 hours

- 37d. LANE UTILITIES COORDINATING COUNCIL  
Center # (503) 342-6676; Contact # (503) 746-8451, ext. 407  
P.O. Box 300, Springfield, OR 97477  
V. Pauline Clark  
Contract/40 Members  
Coverage: Lane County  
Legislation: No; Request Time: 24 hours
- 37e. DOUGLAS UTILITIES COORDINATING COUNCIL  
Center # (503) 673-6676; Contact # (503) 672-1165  
P.O. Box 1520, Roseburg, OR 97470  
Al Haskit  
Contract/21 Members  
Coverage: Douglas County  
Legislation: No; Request Time: 24 hours
- 37f. JOSEPHINE UTILITIES COORDINATING COUNCIL  
Center # (503) 476-6676 Contact # (503) 476-6804  
P.O. Box 1023, Grants Pass, OR 97526  
John Schwendener  
Contract/7 Members  
Coverage: Josephine County  
Legislation: No; Request Time: 24 hours
- 37g. ROUGE BASIN UTILITY COORDINATING COUNCIL  
Center # (503) 668-6676; Contact # (503) 826-3122  
P.O. Box 1148, Medford, OR 97501  
Larry James  
Contract/Jackson County  
Legislation: No; Request Time: 24 hours
- 37h. CENTRAL OREGON COORDINATING COUNCIL  
Center # (503) 389-6676; Contact # (503) 382-1011  
P.O. Box 1209, Bend, OR 97701  
Bill Inman  
Contract/8 Members  
Coverage: 5 Counties  
Legislation: No; Request Time: 24 hours
- 37i. HOODRIVER UNDERGROUND COORDINATING COUNCIL  
Center # (503) 386-4505; Contact # (503) 386-0710  
1206 12th Street, Hoodriver, OR 97031  
Bill Broderick  
Contract/20 Members  
Coverage: Hoodriver County  
Legislation: No; Request Time: 24 hours
- 37j. **EAST LINN COORDINATING COUNCIL**  
Center # (503) 259-2992; Contact # (503) 929-3124  
P.O. Box 582, Lebanon, OR 97355  
Richard Burdick  
Contract/12 Members  
Coverage: Eastern Linn County  
Legislation: No; Request Time: 24 hours
- 37k. CITY OF DALLAS UTILITY COORDINATING COUNCIL  
Center # (503) 623-2338; Contact # (503) 623-2338, ext. 39  
P.O. Box 67, Dallas, OR 97338  
Barbara Cooper  
**In-House/6 Members**  
Coverage: City of Dallas  
Legislation: No; Request Time: 24 hours
- 37l. MALHEUR UTILITY COORDINATING COUNCIL  
Center # (503) 889-2468; Contact # (503) 889-5391  
P.O. Box 550, Ontario, OR 97914  
George Vikers  
Contract/8 Members  
Coverage: Malheur County  
Legislation: No; Request Time: 24 hours
- 37m. KLAMATH UTILITY COORDINATING COUNCIL  
Center # (503) 884-6676; Contact # (503) 882-3411  
P.O. Box 516, Klamath Falls, OR 97601  
Contract/6 Members  
Coverage: Klamath County  
Legislation: No; Request Time: 24 hours
- 37n. NORTH LINCOLN COUNTY UTILITY COORDINATING COUNCIL  
Center # (503) 994-3900; Contact # (503) 996-2151  
P.O. Box 50, Lincoln City, OR 97363  
May Salinas  
Contract/10 Members  
Coverage: North Lincoln County  
Legislation: No; Request Time: 48 hours
- 37o. SOUTH LINCOLN COUNTY UTILITY COORDINATING COUNCIL  
Center # (503) 265-7725; Contact # (503) 265-4291  
810 Swallow, Newport, OR 97365  
Larry Chrisler  
Contract  
Coverage: Southern Lincoln County  
Legislation: No; Request Time: 48 hours

**38. PENNSYLVANIA**

38a. PENNSYLVANIA ONE CALL SYSTEM, INC.  
 Center # 1-800-242-1776 (412)323-7100 (Out-of-state)  
 Contact # (412) 323-7111  
 Three Allegheny Center, Pittsburgh, PA 15212  
 William G. Kiger, Director of Operations  
 Contract/52 Members  
 Coverage: Statewide  
 Legislation: Yes; Request Time: 3 working days

**39. RHODE ISLAND**

39a. DIG-SAFE  
 (See 21 Massachusetts)  
 Center # 1-800-225-4977 (In-state);  
 (617) 229-2770 (Out-of-state);  
 Legislation: Yes; Request Time: 48 hours

**40. SOUTH CAROLINA**

40a. PALMETTO UTILITY LOCATIONS SERVICE  
 Center # 1-800-922-0983 (In-state Only)  
 1-800-845-2594 (Out-of-state)  
 Contact # (803) 791-5367  
 Suite C, Granby Bldg., 1801 Charleston Highway, Cayce,  
 SC 29033  
 Nell Elder  
 Contract/67 Members  
 Coverage: Statewide  
 Legislation: Yes; Request Time: 3 working days

**41. SOUTH DAKOTA****42. TENNESSEE**

42a. TENNESSEE ONE CALL SYSTEM, INC.  
 Center # 1-800-351-1111; Contact # (615)367-0625  
 293 **Plus** Park Blvd., Suite E, Nashville, TN 37217  
 Leamon Andrews  
 Contract/92 Members  
 Coverage: Statewide  
 Legislation: Yes; Request Time: 72 hours

**43. TEXAS**

43a. **TEXAS** ONE CALL SYSTEM  
 Center # 1-800-245-4545; (713) 223-4567 (Houston)  
 Contact # (412)323-7111  
 Three Allegheny Center, Pittsburgh, PA 15212  
 Bill Kiger, Director of Operations  
 Contract/22 Members  
 Coverage: 21 Counties  
 Legislation: No; Request Time: 2 working days

43b. ONE CALL (AUSTIN) AREA UTILITY COORDINATING  
 COUNCIL  
 Center # (512) 472-2822; Contact # (512) 477-6511, ext. 2877  
~~do~~ Construction Inspection **Division**, Public Works Department  
 P.O. **Box** 1088, Austin, TX 78745  
 Joetta M. Collins  
**In-House** 9 Members  
 Coverage: City ~~of~~ Austin  
 Legislation: No; Request Time: 48 **hours**

**44. UTAH**

44a. BLUE STAKES CENTER  
 Center # 1-800-662-4111; Contact # (801)487-6861  
 Central Park Plaza, Suite 117,  
 2880 South Main, Salt **Lake** City, UT 84115  
 Roger Swensen  
 Contract/10 Members  
 Coverage: **Statewide** except Daggett County  
 Legislation: **Yes**; Request Time: 48 **hours**

**45. VERMONT**

45a. DIG-SAFE  
 (See 21 Massachusetts)  
 Center # 1-800-225-4977;  
 (617)229-2770 (Out-of-state)  
 Legislation: No; Request Time: 48 hours

**46. VIRGINIA**

46a. ROANOKE VALLEY UNDERGROUND LOCATION SERVICE  
 Center # (703) 892-2400; Contact # (703)982-4522  
 2001 Patterson Avenue, Roanoke, VA 24016  
 D.W. Jennings  
 Contract/7 Members/Roanoke Area  
 Coverage: 303 sq. mi./4% population  
 Legislation: Yes; Request Time: 2 working days

## 46b. MISS UTILITY OF VIRGINIA

Center # 1-800-552-7001; Contact # (804)780-0101  
 3600 W. Broad Street, Richmond, VA 23230  
 Philip Thompson  
 In-House/51 Members  
 Coverage: 59 Counties  
 Legislation: Yes; Request Time: 2 working days

## 46c. MISS UTILITY

Center # (301)559-0100; Contact # (301) 779-7334  
 6505 Belcrest Road, Suite 7, Hyattsville, MD 20782  
 Tom Hoff  
 Contract/29 Members  
 Coverage: Northern Virginia  
 Legislation: Yes; Request Time: 48 hours

## 46d. MISS UTILITY OF DELMARVA

Center # 1-800-282-8555 (In-state);  
 1-800-441-8355 (Out-of-state); Contact # (302)679-1421  
 146 S. State Street, Dover, DE 19901  
 Melvin R. Wyatt  
 In-House/22 Members  
 Coverage: Delmarva Peninsula  
 Legislation: Yes; Request Time: 2 working days

## 47. WASHINGTON

## 47a. UTILITIES UNDERGROUND LOCATION CENTER

Center # 1-800-424-5555; Contact # (206)454-6888  
 12951 Bel-Red Road, Bellevue, WA 98005  
 Tom Odegaard  
 Contract/154 Members  
 Coverage: 30 Counties/75% population  
 Legislation: Yes; Request Time: 2 working days

## 47b. GRAYS HARBOR &amp; PACIFIC COUNTY UTILITY COORDINATING COUNCIL

Center # (206)532-3550; Contact # (206)482-2812  
 c/o Pacific Northwest Bell, 101 E. Market, Aberdeen, WA 98520  
 George Caldwell  
 Contract/22 Members  
 Coverage: Grays Harbor County & Pacific County  
 Legislation: Yes; Request Time: 2 working days

## 47c. COWLITZ COUNTY UTILITY COORDINATING COUNCIL

Center # (206)452-2506; Contact # (206)577-3030  
 P.O. Box 128, Longview, WA 98632  
 Ron Colbert  
 Contract/9 Members  
 Coverage: Cowlitz County  
 Legislation: Yes; Request Time: 2 working days

## 47d. CLARK COUNTY UTILITY LOCATING SERVICE

Center # (206)696-4848; Contact # (206) 699-2454  
 P.O. Box 182, Vancouver, WA 98660  
 Bruce Cross  
 Contract/8 Members  
 Coverage: Clark County  
 Legislation: Yes; Request Time: 2 working days

## 47e. CHELAM-DOUGLAS UTILITY COORDINATING COUNCIL

Center # (509) 663-6111; Contact # (509)662-6101  
 P.O. Box 511, Wenatchee, WA 98801  
 Bob Burke  
 Contract/12 Members  
 Coverage: Chelan County & Douglas County  
 Legislation: Yes; Request Time: 24 hours

## 47f. UPPER YAKIMA COUNTY UNDERGROUND UTILITIES COUNCIL

Center # (509) 248-0202; Contact # (509) 925-1425  
 c/o Ellensburg Telephone Co., P.O. Box 308, Ellensburg, WA 98926  
 Jack Morfield  
 Contract/16 Members  
 Coverage: Upper 1/2 of Yakima County  
 Legislation: Yes; Request Time: 2 working days

## 47g. KLICKITAT-SKAMANIA COORDINATING COUNCIL

Center # (509)493-3199; Contact # (206)577-5151  
 c/o Pacific Northwest Bell, 865 Douglas St., Longview, WA 98632  
 Blair Anderson  
 Contract/18 Members  
 Coverage: Klickitat County & Skamania County  
 Legislation: Yes; Request Time: 2 working days

## 47h. WALLA WALLA AREA UTILITY COORDINATING COUNCIL

Center # (509)6363; Contact # (509) 525-0510  
 P.O. Box 128, College Place, WA 99324  
 Paul Hartwig  
 Contract/9 Members  
 Coverage: City of Walla Walla & Surrounding Area  
 Legislation: Yes; Request Time: 2 working days

47i. INLAND EMPIRE UTILITY COORDINATING COUNCIL  
Center # (509) 456-8000, Contact # (509) 535-0391  
P.O. **Box** 3266 T.A., Spokane, WA 99220  
Rol Heniges  
Contract/16 Members  
Coverage: Spokane County  
Legislation: **Yes**; Request Time: 2 working days

47j. PALOUSE EMPIRE UNDERGROUND COORDINATING COUNCIL  
Center # (208) 882-1974; Contact # (509) 332-2911  
P.O. **Box** 72, Pullman, WA 99163  
Van Lyber  
Contract/7 Members  
Coverage: Whitman  
Legislation: Yes; Request Time: 24 hours

#### 48. WEST VIRGINIA

48a. MISS UTILITY OF WEST VIRGINIA, INC.  
Center # 1-800-245-4848 (In-state) Contact # (412) 323-7111  
Three Allegheny Center, Pittsburgh, Pennsylvania 15212  
William G. Kiger  
Contract/22 Members  
Coverage: Statewide  
Legislation: No; Request Time: 3 working days

#### 49. WISCONSIN

49a. DIGGERS HOTLINE  
Center # 1-800-242-8511;  
(414) 344-5111  
Contact # (414) 344-7398  
Suite 380, 2040 W. Wisconsin Ave., Milwaukee, WI 53233  
Susan J. Horejs  
Contract/30 Members  
Coverage: Statewide  
Legislation: Yes; Request Time: 72 hours

#### 50. WYOMING

50a. WEST PARK UTILITY COORDINATING COUNCIL  
Center # (307) 587-4800; Contact # (307) 587-4201  
1338 Rumsey, Cody, WY 82414  
Chuck Eicher  
**In-House**/5 Members  
Coverage: Park County  
Legislation: Yes; Request Time: 48 hours

50b. CALL-IN-DIG-IN SAFETY COMMISSION  
Center # (307) 682-9811; Contact # (307) 682-5106  
407 N. Gillette Ave., Gillette, WY 82716  
Amie Davis  
Contract/10 Members  
Coverage: Campbell, Crook, Weston Counties  
Legislation: **Yes**; Request Time: 48 hours

50c. FREEMONT COUNTY UTILITY COORDINATING COUNCIL  
Center # (307) 332-9562;  
Contact # (307) 856-2332 / (307) 332-2413  
P.O. **Box** 1232, Riverton, WY 82501  
Rich Cisar, Ed Allender  
Contract/11 Members  
Coverage: Fremont County  
Legislation: Yes; Request Time: 48 hours

50d. CENTRAL WYOMING UTILITY COORDINATING COUNCIL  
Center # (307) 265-5252; Contact # (307) 266-1000  
200 N. David, Casper, WY 82601  
Don Roseboom  
Contract  
Coverage: Natrona County  
Legislation: Yes; Request Time: 48 hours

50e. SWEETWATER COUNTY UTILITY COORDINATING COUNCIL  
Center # (307) 362-8888 (Rock Springs)  
(307) 875-4644 (Green River), Contact # (307) 362-2642  
Ed Lewis, Rock Springs  
Contract/15 Members  
Coverage: Sweetwater County  
Legislation: Yes; Request Time: 48 hours

50f. CARBON COUNTY UTILITY COORDINATING COUNCIL  
Center # (307) 324-6666; Contact # (307) 324-2761  
P.O. **Box** 700, Rawlins, WY 82301  
Pierre Francis, Chairman  
Contract/6 Members  
Coverage: Carbon County Area  
Legislation: Yes; Request Time: 48 hours

50g. ALBANY COUNTY UTILITY COORDINATING COUNCIL  
Center # (307) 742-3615; Contact # (307) 766-2250  
P.O. **Box** 3227, University Station, Laramie, WY 82071  
Fred Crowell  
Contract/15 Members  
Coverage: Albany County  
Legislation: Yes; Request Time: 48 hours

50h. SOUTHEASTERN WYOMING UTILITY COORDINATING COUNCIL

Center # (307) 638-6666; Contact # (307) 638-3361  
4719 Ridge Road, Cheyenne, WY 82001  
John Lichenwalter  
Contract/7 Members  
Legislation: Yes; Request Time: 48 hours

50i. CONVERSE COUNTY UTILITY COORDINATING COUNCIL

Center # (307) 358-5566; Contact # (307) 358-5351  
P.O. Box 263, Douglas, WY 82633  
Richard Cayer  
In-House/5 Members  
Legislation: Yes; Request Time: 48 hours

51. DISTRICT OF COLUMBIA

51a. MISS UTILITY

Center # (301) 559-0100; Contact # (301) 779-7334  
6505 Belcrest Road, Suite 7, Hyattsville, MD 20782  
Tom Hoff  
Contract/28 Members  
Coverage: 61.4sq. mi./100% population  
Legislation: Yes; Request Time: 2 working days

**Canada**

52. ALBERTA PROVINCE

52a. ALBERTA ONE CALL SYSTEM

Center # 1-800-242-3447; Contact # (403) 245-9993  
P.O. Box 14,909-11 Avenue S.W., Calgary, Alberta T2R1L8  
Scott Henley  
Contract/20 Members  
Coverage: Entire Province  
Legislation: No; Request Time: 2 working days

**International Centers**

53. REPUBLIC OF CHINA

53a. DIG CENTER

Center # 02-351-2345; Contact # 02-351-2345  
Taiwan Telecommunication Administration  
Ministry of Communications  
42 Jen Ai Road, Sec. 1, Taipei, Taiwan 100 Republic of China

54. SCOTLAND

54a. SUSIEPHONE

Center # dial 100 as for freephone 8400;  
Contact # 031-556-2533  
Blandfield House, 140 Broughton Road, Edinburgh, Scotland EH7 4LP  
Norman Gilkison  
Contract/5 Members/Lothian Region  
Legislation: No

# **Summary Current Damage Prevention Laws August 1984**

State	Law	Protects	Examples	Accuracy of Location	Notification Time	Positive Response	Protection Required of Excavation	Color Code	Penalty Class	Emergency Class	License Permit
Alabama.....	No										
Alaska.....	No										
Arizona.....	H B 3474 Title 40 Art. 6.4	All utilities Includes Overhead			2 Days		Excavate in careful & prudent manner		\$1000	Yes	
Arkansas.....	No										
California.....	A B 1606 A B 3470	Effective July 1, 1983 the law requires any operator of underground facilities All Pressurized Underground Drain Lines			48 hours	except the DOT, to join a one-call system.	Careful & prudent manner	No	Determined by court	Yes	No
Colorado.....	S B 172 Art. 1.5	All utilities	None	Within 18"	2 days	Yes	Careful & prudent manner	No	Injunctive relief determined by court	Yes	No
Connecticut.....	Public Acts 77-350 & 81-146	All utilities	Drainage facilities	Within 1-1/2 ft.	2 days	Yes	If gas, hand dig within 18"	Yes	Up to \$10,000	Yes	No
Delaware.....	Title 26, Chapter 8 3-240	All utilities	Homeowner, killing of soil D C Govt. U S Govt.	Within 18" 18"	2-10 days 2-10 days	Yes Yes	Careful & prudent If gas, hand dig in prox. unless D C, has prev. dug test pit	Yes No	\$100 to \$1000 Damage without notification, trouble damages can be recovered \$1000 CWRK	Yes Yes	No Yes
Florida.....	Sec. 553, 851 1977 Rev. 1979	Gas flammable	All others	12" horizontal 18" vertical	2 days min	Yes	Excavate in careful & prudent manner	No	Determined by court	Yes	Yes
Georgia.....	H B 128 1969 H B 1663 1970 H B 480 1975 H B 1268 1978	Gas		24"	3-10 days	Yes			Misdemeanor	Yes	
Hawaii.....	No										
Idaho.....	No										
Illinois.....	Ill. Com. Comm. Co. Ord. 185 Rev. 1976	All utilities			48 hours						
Indiana.....	No										
Iowa.....	No										
Kansas.....	No										
Kentucky.....	No										
Louisiana.....	Rev. Statute 38:2223 1977	All utilities	Accurately diagram		30 days	Yes					
Maine.....	Chp 284 Pub. Law 1971	All utilities	Conditional		48 hours				\$50-\$100	Yes	Yes
Maryland.....	Art. 78 Sec 28a 1974	All utilities	None	3 ft. either side	48 hours	Yes	Excavate in careful & prudent manner		\$1000 or 10 times cost of damage	Yes	No
Massachusetts.....	Sec. 40 Chap 82 1984, Chap 502 1980	All utilities			72 hours	Yes	Avoid damage		\$200 1st offense \$400 2nd \$1000 subsequent	Yes	Yes
Michigan.....	Pub. Act 53 1974	All utilities	None	Within 1-1/2 ft	2 days	No	Must employ hand dug test holes	Yes	Up to \$1000	Yes	No
Minnesota.....	Fire Code 15.1201	Requires notification in area of combustible gases									
Mississippi.....	None										
Missouri.....	Chap 319 1976 Ord. 2713	All utilities	Agricultural & extracting natural resources	Correct location	2 days	Yes	Excavate in careful & prudent manner		Suspension of business	Yes	
Montana.....	None										
Nebraska.....	None										
Nevada.....	None										
New Hampshire.....	374-51	All utilities			72 hours	No			\$500	Yes	No
New Jersey.....	Chap 53 1964 Chap 122 1976	Gas lines	Power poles & hwy. dept.		3-30 days	Yes	Avoid damage			Yes	

**Summary  
Current Damage Prevention Laws  
August 1984**

State	Law	Protects	Exempts	Accuracy of Location	Notification Time	Positive Response	Protection Required of Excavation	Color Code	Penalty Clause	Emergency Clause	Issue Permits
New Mexico	Chap 62 Apr 14 1978 H B 65 EH 4-81	All Utilities			48 hours	Yes	Maintain 18 from cutting edge		\$1000	Yes	
New York	Chap 818 1974 Rule 53 1975	All utilities		Within 2 ft. of edge of facility	21 days	Yes	Hand dig test holes cannot employ pwr equip within 4	Yes	\$500 1st vio- lation \$500 each violation on same project	Yes	
North Carolina	New bill to be introduced										
North Dakota	S B. 2036 Sec 11-18-16 1973	All utilities		Accurate	3 days	Yes					
Ohio	H. B. 538 En- rolled 1981-82 session	Protects all & asks for depth Engineer must locate facilities on the print.			48 hours						
Oklahoma	Title 63, Sect. 142 1.11	All underground utilities	Certain agencies under certain conditions	2 ft either side	21 days	Yes	Hand dig test holes cannot employ pwr equip over marked line until exposed & protected	Yes	No	Yes	NO
Oregon	None										
Pennsylvania	Act No 287 1974	All utilities	Excavation for for Nat. Res	Obtain location	Not less than 3 days	Yes			\$100 min \$1000 max + up to 90 days in jail	Yes	
Rhode Island	Sec 39-2 1984	All utilities	None	18	48 hours	No	Detailed precautions	Yes	\$100 1st \$500 2nd \$1000 subsequential	Yes	NO
South Carolina	H B 4020 1978	All utilities	Conditional	2' either side	3 days min 10 days max	Yes	Operators shall inform notification center but not re- quired to join		\$1000 max	Yes	NO
South Dakota	H B. 639 1977	All utilities	RR & Dept. of Transp	Accurate	2 days	Yes				Y**	
Tennessee	R b Chap. 692 S.B 1726 1978	All utilities	None	2' either side	3-10 days	Yes	Maintain clearance	Yes	\$1000	Yes	No
Texas	None										
Utah	U.C.A. 54-8a-1 et. seq	All utilities	Pub. Util employees; tilling of soil	Location of facility	2 days	Yes	Cannot start excavation until cleared by util. response	No	\$299 plus damages	Yes	NO
Vermont	None										
Virginia	Chap 291 Title 56	All utilities	Conditional	Within 2' either side	48 hours	Yes	Excavation careful & prudent manner	Yes	None	Y R	No
Washington	Chp. 144 Title 19 RCW	All utilities	Excavation of less than 12"	2' either side	2 days	No	Excavate in careful & prudent manner	Yes	\$1000 plus damages	Yes	No
West Virginia	HB in Legislation										
Wisconsin	S B 182 0175 1977	All utilities		Mark in manner to enable excav. to locate	3 days	Yes	Maintain 18" clearance cutting edge stake	Yes	\$1000 to \$2000	Yes	No
Wyoming	chap 46 Art. 3 1978			Within 18" of edge	2 days	Yes	Excavate in careful & prudent manner			Yes	

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